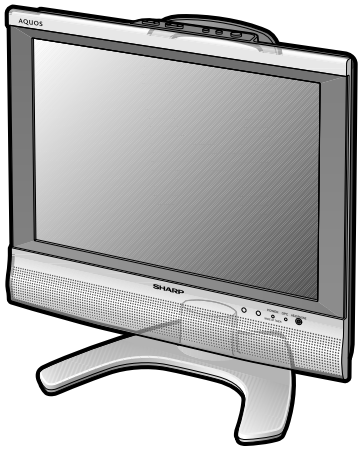
SHARP SERVICE MANUAL

S75L9LC15S4US



LCD COLOR TELEVISION

MODEL LC-15S4U-S

In the interests of user-safety (Required by safety regulations in some countries) the set should be restored to its original condition and only parts identical to those specified should be used.

CONTENTS

Page

- IMPORTANT SERVICE SAFETY PRECAUTION 2
- SPECIFICATIONS 5
- OPERATION MANUAL 6
- DIMENSIONS 8
- REMOVING OF MAJOR PARTS 9
- ADJUSTING PROCEDURE OF EACH SECTION 13
- PUBLIC MODE SETTING PROCEDURE 23
- TROUBLE SHOOTING TABLE 28
- MAJOR IC INFORMATIONS 32
- BLOCK DIAGRAM 34
- OVERALL WIRING DIAGRAM 36
- DESCRIPTION OF SCHEMATIC DIAGRAM 38
- SCHEMATIC DIAGRAM
  - ■R/C, LED Unit 39
  - ■MAIN Unit 40
  - ■ANALOG Unit 50
- PRINTED WIRING BOARD ASSEMBLIES 60
- REPLACEMENT PARTS LIST 73
- PACKING OF THE SET 83

SHARP CORPORATION

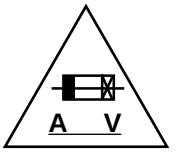
This document has been published to be used for after sales service only.
The contents are subject to change without notice.

IMPORTANT SERVICE SAFETY PRECAUTION

■ **Service work should be performed only by qualified service technicians who are thoroughly familiar with all safety checks and the servicing guidelines which follow:**

WARNING

1. For continued safety, no modification of any circuit should be attempted.
2. Disconnect AC power before servicing.



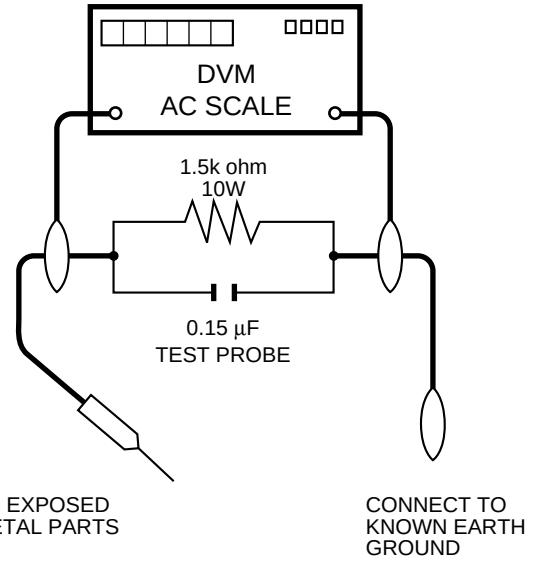
CAUTION: FOR CONTINUED PROTECTION AGAINST A RISK OF FIRE REPLACE ONLY WITH SAME TYPE F3701 (2.5A, 250V), F3702 (2.0A, 250V), F6501 (1.6A, 250V) AND F6502 (1.6A, 250V) FUSE.

BEFORE RETURNING THE RECEIVER (Fire & Shock Hazard)

Before returning the receiver to the user, perform the following safety checks:

1. Inspect all lead dress to make certain that leads are not pinched, and check that hardware is not lodged between the chassis and other metal parts in the receiver.
2. Inspect all protective devices such as non-metallic control knobs, insulation materials, cabinet backs, adjustment and compartment covers or shields, isolation resistor-capacitor networks, mechanical insulators, etc.
3. To be sure that no shock hazard exists, check for leakage current in the following manner.

- Plug the AC cord directly into a 110~240 volt AC outlet, and connect the DC power cable into the receiver's DC jack. (Do not use an isolation transformer for this test).
- Using two clip leads, connect a 1.5k ohm, 10 watt resistor paralleled by a 0.15µF capacitor in series with all exposed metal cabinet parts and a known earth ground, such as electrical conduit or electrical ground connected to an earth ground.
- Use an AC voltmeter having with 5000 ohm per volt, or higher, sensitivity or measure the AC voltage drop across the resistor.
- Connect the resistor connection to all exposed metal parts having a return to the chassis (antenna, metal cabinet, screw heads, knobs and control shafts, escutcheon, etc.) and measure the AC voltage drop across the resistor.
  All checks must be repeated with the AC cord plug connection reversed. (If necessary, a nonpolarized adaptor plug must be used only for the purpose of completing these checks.)
  Any reading of 0.75V peak (this corresponds to 0.5 mA. peak AC.) or more is excessive and indicates a potential shock hazard which must be corrected before returning the monitor to the owner.



SAFETY NOTICE

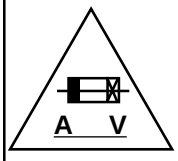
Many electrical and mechanical parts in LCD television have special safety-related characteristics.
These characteristics are often not evident from visual inspection, nor can protection afforded by them be necessarily increased by using replacement components rated for higher voltage, wattage, etc.
Replacement parts which have these special safety characteristics are identified in this manual; electrical components having such features are identified by "⚠" and shaded areas in the ***Replacement Parts Lists*** and ***Schematic Diagrams***.
For continued protection, replacement parts must be identical to those used in the original circuit.
The use of substitute replacement parts which do not have the same safety characteristics as the factory recommended replacement parts shown in this service manual, may create shock, fire or other hazards.

PRECAUTIONS A PRENDRE LORS DE LA REPARATION

■ **La réparation ne peut être effectuée que par un technicien spécialisé qui s'est parfaitement accoutumé à toute vérification de sécurité et aux conseils suivants.**

AVERTISSEMENT

1. Pour la sécurité continue, n'entreprendre aucune modification de tout circuit.
2. Débrancher l'alimentation CA avant la réparation.



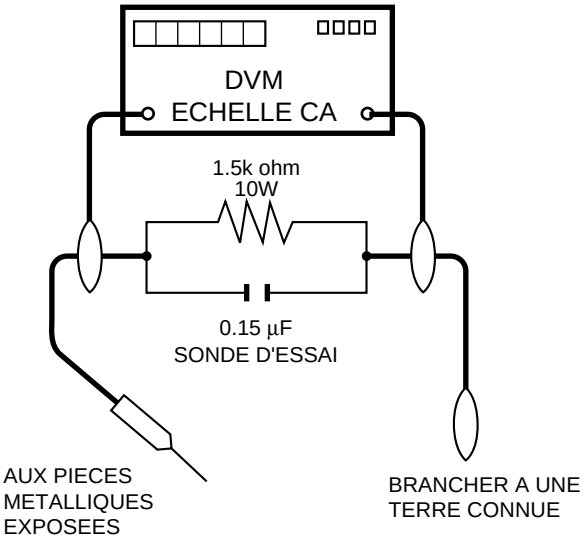
PRECAUTION: POUR LA PROTECTION CONTINUE CONTRE LES RISQUES D'INCENDIE, REMPLACER LE FUSIBLE PAR UN FUSIBLE DE MEME TYPE F3701 (2.5A, 250V) F3702 (2.0A, 250V), F6501 (1.6A, 250V) et F6502 (1.6A, 250V).

AVANT DE RENDRE LE RECEPTEUR A L'UTILISATEUR (Incendie et choc électrique)

Avant de rendre le récepteur à l'utilisateur, effectuer les vérifications suivantes.

1. Inspecter tous les faisceaux de câbles pour s'assurer que les fils ne soient pas pincés ou qu'un outil ne soit pas placé entre le châssis et les autres pièces métalliques du récepteur.
2. Inspecter tous les dispositifs de protection comme les boutons de commande non-métalliques, les isolants, le dos du coffret, les couvercles ou blindages de réglage et de compartiment, les réseaux de résistance-capacité, les isolateurs mécaniques, etc.
3. S'assurer qu'il n'y ait pas de danger d'électrocution en vérifiant la fuite de courant, de la facon suivante:

- Brancher le cordon d'alimentation directem-ent à une prise de courant de 110-240V. (Ne pas utiliser de transformateur d'isolation pour cet essai).
- A l'aide de deux fils à pinces, brancher une résistance de 1.5kΩ 10 watts en parallèle avec un condensateur de 0.15µF en série avec toutes les pièces métalliques exposées du coffret et une terre connue comme une conduite électrique ou une prise de terre branchée à la terre.
- Utiliser un voltmètre CA d'une sensibilité d'au moins 5000Ω/V pour mesurer la chute de tension CA en travers de la résistance.
- Toucher avec la sonde d'essai les pièces métalliques exposées qui présentent une voie de retour au châssis (antenne, coffret métallique, tête des vis, arbres de commande et des boutons, écusson, etc.) et mesurer la chute de tension CA en travers de la résistance. Toutes les vérifications doivent être refaites après avoir inversé la fiche du cordon d'alimentation. (Si nécessaire, une prise d'adpatation non polarisée doit être utilisée dans le but de terminer ces vérifications.)
  La tension de pointe mesurée ne doit pas dépasser 0.75V (correspondante au courant CA de pointe de 0.5mA). Dans le cas contraire, il y a une possibilité de choc électrique qui doit être supprimée avant de rendre le récepteur au client.



AVIS POUR LA SECURITE

De nombreuses pièces, électriques et mécaniques, dans les téléviseurs de l'afficharge à cristaux liquides présentent des caractéristiques spéciales relatives à la sécurité.
Ces caracténstiques ne sont souvent pas évidentes à vue. Le degré de protection ne peut pas être nécessairement augmentée en utilisant des pièces de remplacement étalonnées pour haute tension, puissance, etc.
Les pièces de remplacement qui présentent ces caractéristiques sont identifiées dans ce manuel; les pièces électriques qui présentent ces particularités sont identifiées par la marque " ⚠ " et hachurées dans la ***liste des pièces de remplacement*** et les ***diagrammes schématiques***.
Pour assurer la protection, ces pièces doivent être identiques à celles utilisées dans le circuit d'origine. L'utilisation de pièces qui n'ont pas les mêmes caractéristiques que les pièces recommandées par l'usine, indiquées dans ce manuel, peut provoquer des électrocutions, incendies ou autres accidents.

Precautions for using lead-free solder

1 Employing lead-free solder

"All PWBs" of this model employs lead-free solder. The LF symbol indicates lead-free solder, and is attached on the PWBs and service manuals. The alphabetical character following LF shows the type of lead-free solder.

Example:

Indicates lead-free solder of tin, silver and copper.

2 Using lead-free wire solder

When fixing the PWB soldered with the lead-free solder, apply lead-free wire solder. Repairing with conventional lead wire solder may cause damage or accident due to cracks.

As the melting point of lead-free solder (Sn-Ag-Cu) is higher than the lead wire solder by 40°C, we recommend you to use a dedicated soldering bit, if you are not familiar with how to obtain lead-free wire solder or soldering bit, contact our service station or service branch in your area.

3 Soldering

As the melting point of lead-free solder (Sn-Ag-Cu) is about 220°C which is higher than the conventional lead solder by 40°C, and as it has poor solder wettability, you may be apt to keep the soldering bit in contact with the PWB for extended period of time. However, Since the land may be peeled off or the maximum heat-resistance temperature of parts may be exceeded, remove the bit from the PWB as soon as you confirm the steady soldering condition.

Lead-free solder contains more tin, and the end of the soldering bit may be easily corroded. Make sure to turn on and off the power of the bit as required.

If a different type of solder stays on the tip of the soldering bit, it is alloyed with lead-free solder. Clean the bit after every use of it.

When the tip of the soldering bit is blackened during use, file it with steel wool or fine sandpaper.

Be careful when replacing parts with polarity indication on the PWB silk.

Lead-free wire solder for servicing

Part No,	★	Description		Code
ZHNDAi123250E	J	ϕ0.3mm	250g(1roll)	BL
ZHNDAi126500E	J	ϕ0.6mm	500g(1roll)	BK
ZHNDAi12801KE	J	ϕ1.0mm	1kg(1roll)	BM

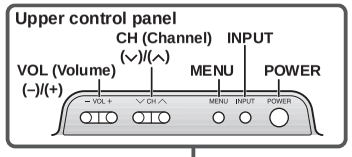
SPECIFICATIONS

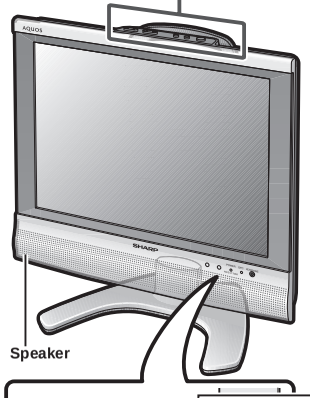
Items \ Model		LC-15S4U
LCD panel		15" Advanced Super View & BLACK TFT LCD
Number of dots		921,600 dots VGA
Video color systems		N358, N443, PAL, PAL-M, PAL-N, SECAM, PAL-60
TV function	TV Standard (CCIR)	NTSC/PAL-M/PAL-N
	TV Tuning System	PLL 181 ch.
	STEREO	MTS+SAP
	CATV	125 ch.
Y/C FILTER		3-LINE COMB FILTER
Brightness		430 cd/m^2
Viewing angles		H: 170° V: 170°
Audio amplifier		2.1 W × 2
Speakers		1 $^{3}/_{16}$ × 2 $^{61}/_{64}$ in. (3 × 7.5 cm), 2 pcs.
Terminals	INPUT1	Mini-jack for stereo (ø3.5 mm), COMPONENT-IN
	INPUT2	AUDIO-IN, VIDEO-IN, S-VIDEO-IN
	INPUT3/OUTPUT	AUDIO-IN, VIDEO-IN/AUDIO-OUT, VIDEO-OUT
	Antenna	F-Type
	Headphone	Mini-jack for stereo (ø3.5 mm)
OSD language		English/Spanish/French
Power supply		DC 12V, AC 110-240V, 50/60Hz (AC adapter), AC 110-125V (AC cord)
Power consumption		36 W (0.2 W standby): AC 120V
		31 W: DC 12V
Weight	Display only	7.9 lbs./3.6 kg
	Display with stand	9.5 lbs./4.3 kg
Operating temperature		+32°F to +104°F (0°C to +40°C)

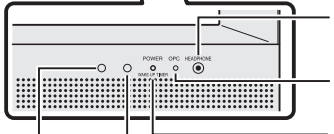
■As a part of policy of continuous improvement, SHARP reserves the right to make design and specification changes for the LCD TV set improvement without prior notice. The performance specification figures indicated are nominal values of production units. There may be some deviations from these values in individual units.

Part Names of the Main Unit

Controls







HEADPHONE jack
Plug the headphone mini-plug into the Headphone jack located on the front of the main unit.

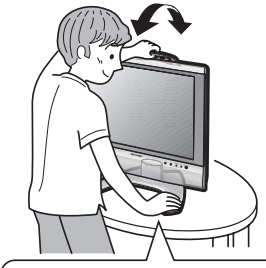
OPC (Optical Picture Control) indicator
The OPC indicator lights up green when "OPC" is set to "ON".

POWER/WAKE UP TIMER indicator
POWER/WAKE UP TIMER indicator lights up green when the power is on, and red when in the standby mode (the indicator will not light when the main power is off), and orange when the wake-up timer is set (the indicator will light when in the standby mode).

NOTE

- **INPUT**, **CH (∨)/(∧)**, **VOL (–)/(+)** and **MENU** on the main unit have the same functions as the same buttons on the remote control. Fundamentally, this operation manual provides a description based on operation using the remote control.

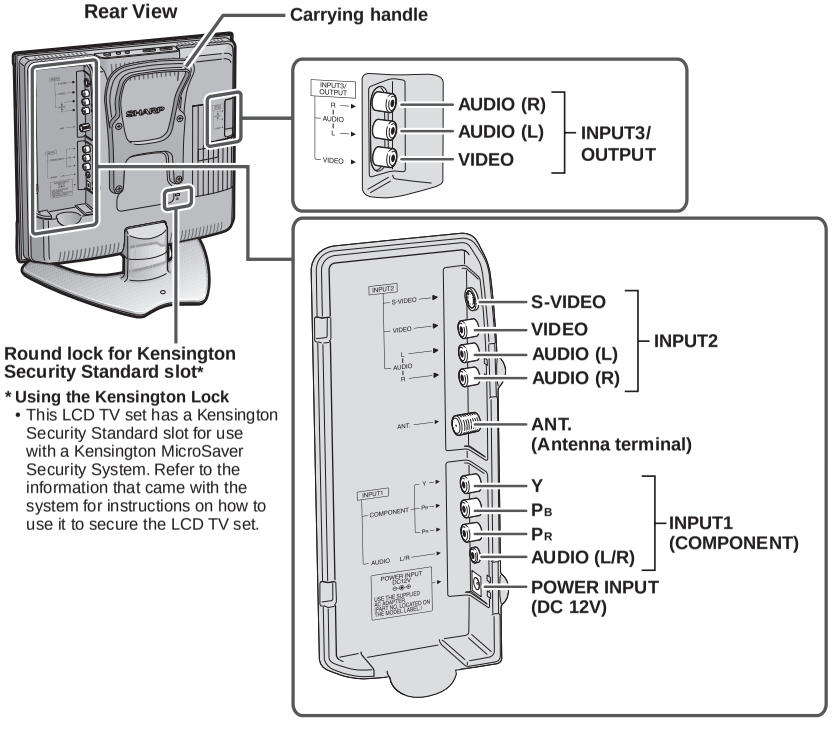
■ How to adjust the angle



Tilt the display by grabbing onto the carrying handle while securely holding down the stand with your other hand.

To change the vertical angle of the LCD TV set, tilt the screen up to 2.5 degrees forward or 10 degrees backward. Please adjust the angle so that the LCD TV set can be watched most comfortably.

Terminals

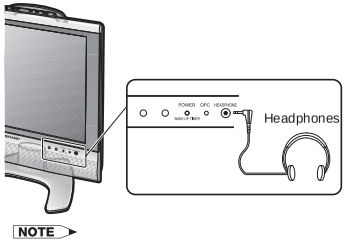


*** Using the Kensington Lock**

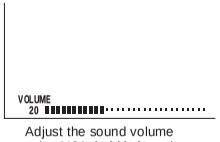
- This LCD TV set has a Kensington Security Standard slot for use with a Kensington MicroSaver Security System. Refer to the information that came with the system for instructions on how to use it to secure the LCD TV set.

Listening with Headphones

■ Plug the headphone mini-plug into the HEADPHONE jack located on the front of the main unit.



▼ **On-screen display**



Adjust the sound volume using **VOL (+)/(–)** on the remote control.

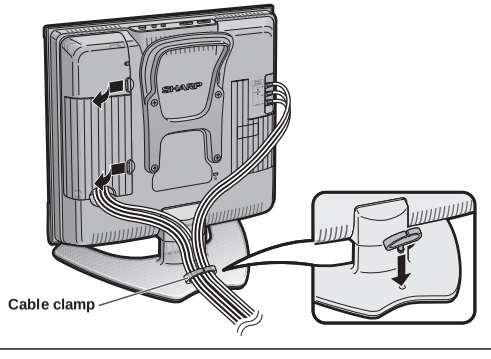
NOTE

- Headphones are not included in the supplied accessories.
- No sound is heard from the main unit speakers when a headphone mini-plug is connected into the HEADPHONE jack.
- Do not set the volume at a high level. Hearing experts advise against extended listening at high volume levels.

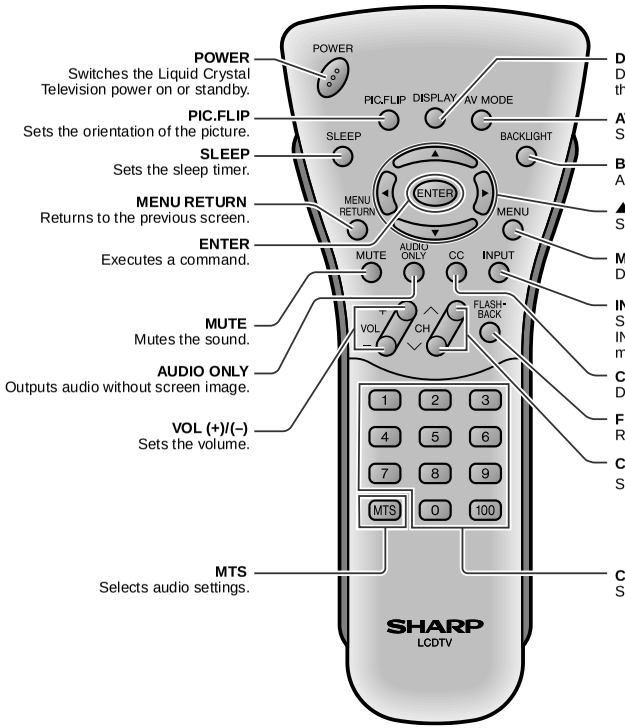
How to Fix the Cables

- Secure cables and cords with the supplied cable clamp so that they do not get caught when mounting the cover.

Push the two hooks sideways to the left to open the cover.



Part Names of the Remote Control



POWER
Switches the Liquid Crystal Television power on or standby.

PIC.FLIP
Sets the orientation of the picture.

SLEEP
Sets the sleep timer.

MENU RETURN
Returns to the previous screen.

ENTER
Executes a command.

MUTE
Mutes the sound.

AUDIO ONLY
Outputs audio without screen image.

VOL (+)/(–)
Sets the volume.

MTS
Selects audio settings.

DISPLAY
Displays the receiving channel and the current time for 10 seconds.

AV MODE
Selects preferred AV MODE.

BACKLIGHT
Adjusts the brightness of the screen.

▲/▼/◀/▶ (Cursor control)
Selects a desired item on the screen.

MENU
Displays the menu screen.

INPUT
Switches the input source between INPUT1, INPUT2, INPUT3 and TV mode.

CC
Displays Closed Caption subtitles.

FLASHBACK
Returns to the previous channel.

CH (^)/(v)
Selects a channel.

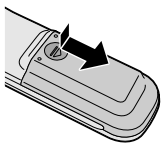
Channel Select
Sets the channel.

Preparation

Installing Batteries in the Remote Control

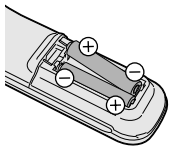
Before using the LCD TV set for the first time, install the two "AAA" size batteries supplied in the remote control. When the batteries become depleted and the remote control fails to operate, replace the batteries with new "AAA" size batteries.

1 Open the battery cover.



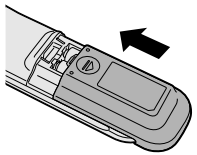
■ Slide the cover while pressing the (▾) part.

2 Insert two "AAA" size batteries.



■ Place batteries with their terminals corresponding to the (+) and (–) indications in the battery compartment.

3 Close the battery cover.



■ Engaging the lower claw with the remote control, close the cover.

⚠ Caution!

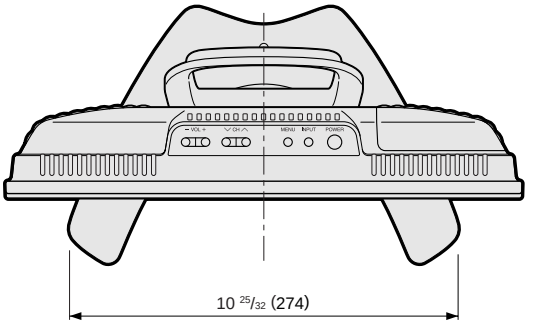
Precautions regarding batteries

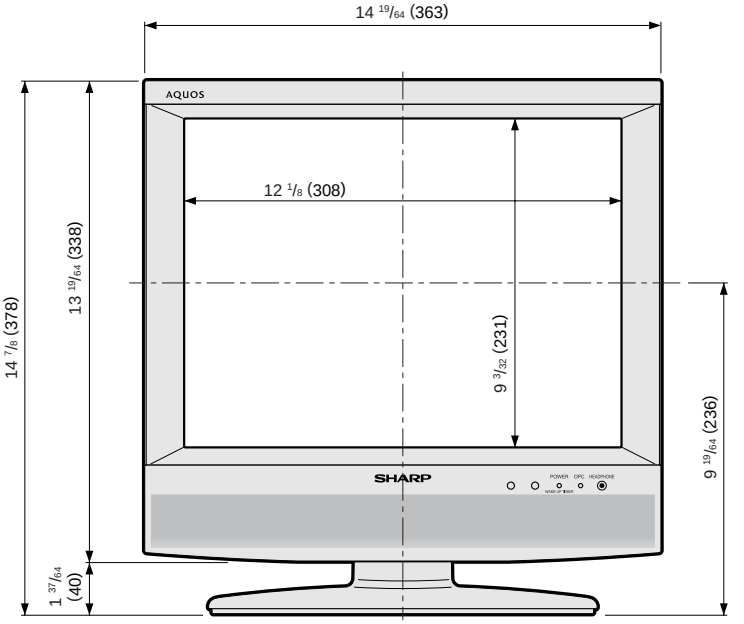
■ Improper use of batteries can result in a leakage of chemicals and/or explosion. Be sure to follow the instructions below.

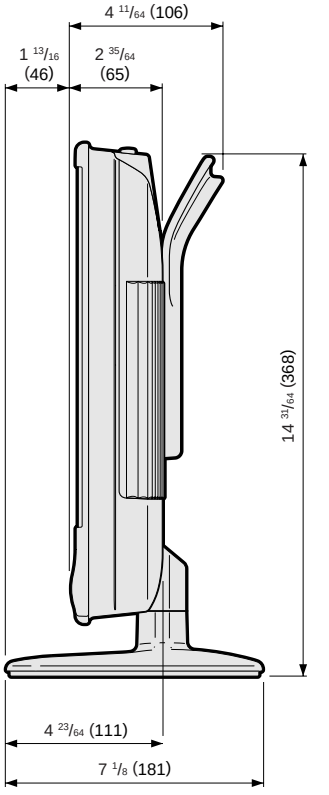
- Place batteries with their terminals corresponding to the (+) and (–) indications.
- Different types of batteries have different characteristics. Do not mix batteries of different types.
- Do not mix old and new batteries. Mixing old and new batteries can shorten the life of new batteries and/or cause old batteries to leak chemicals.
- Remove batteries as soon as they are depleted. Chemicals that leak from batteries can cause a rash. If chemical leakage is found, wipe it off with a cloth.
- The batteries supplied with the LCD TV set may have a shorter operating time due to storage conditions.
- If the remote control is not to be used for a long period of time, remove the batteries from the remote control.

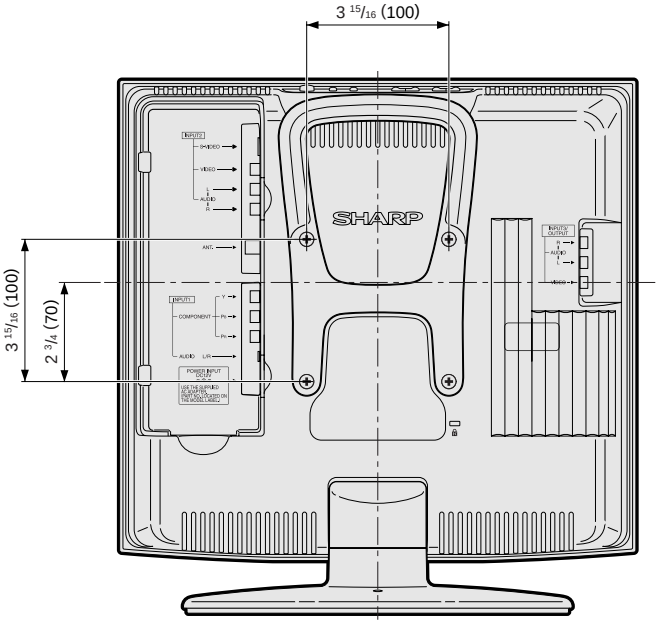
DIMENSIONS

Unit: inch (mm)



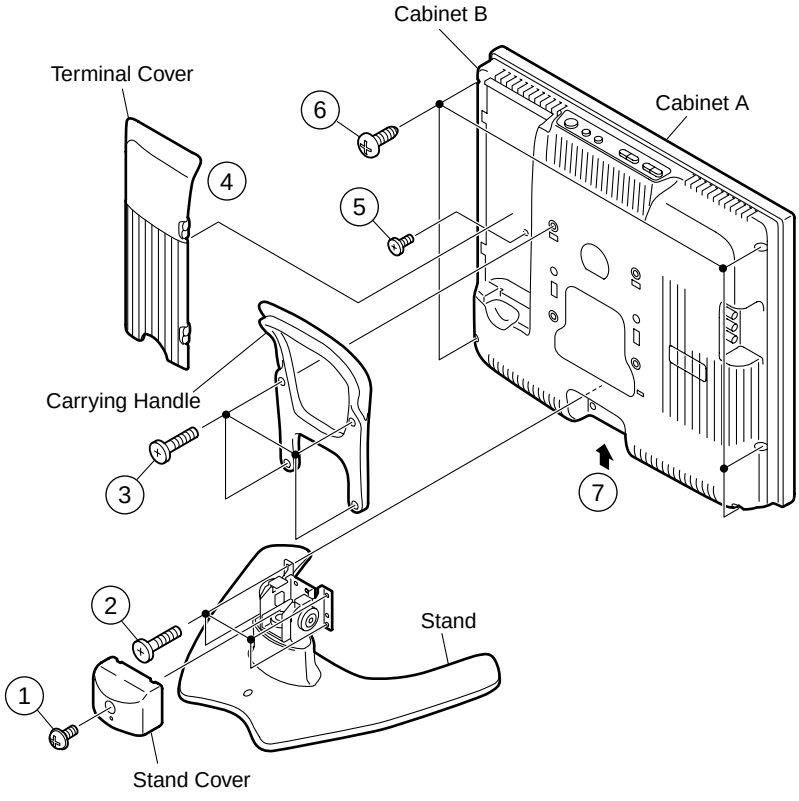


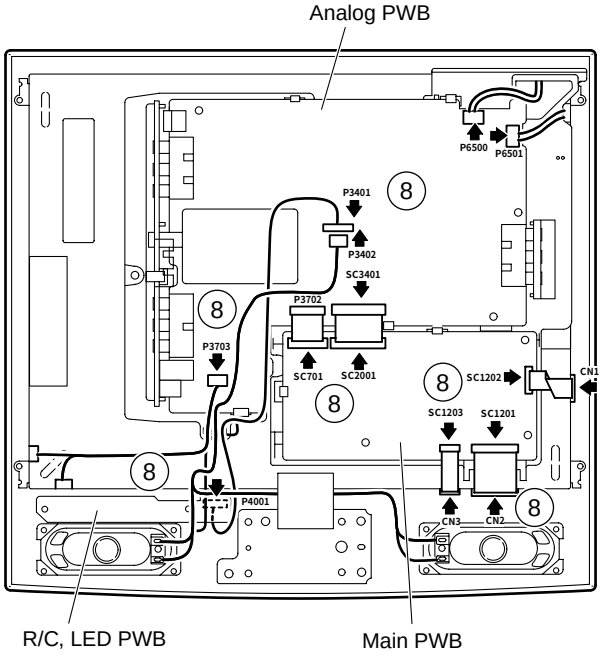




REMOVING OF MAJOR PARTS

1. Remove the stand cover fixing screws (1 pc.).
2. Remove the stand fixing screws (4 pcs.).
3. Remove the carrying handle fixing screws (4 pcs.).
4. Remove the terminal cover.
5. Remove the terminal screws (1 pc.).
6. Remove the cabinet B fixing screws (5 pcs.).
7. Remove the cabinet B after opening from the direction of an arrow.
8. Disconnect all the connectors from all the PWBs.

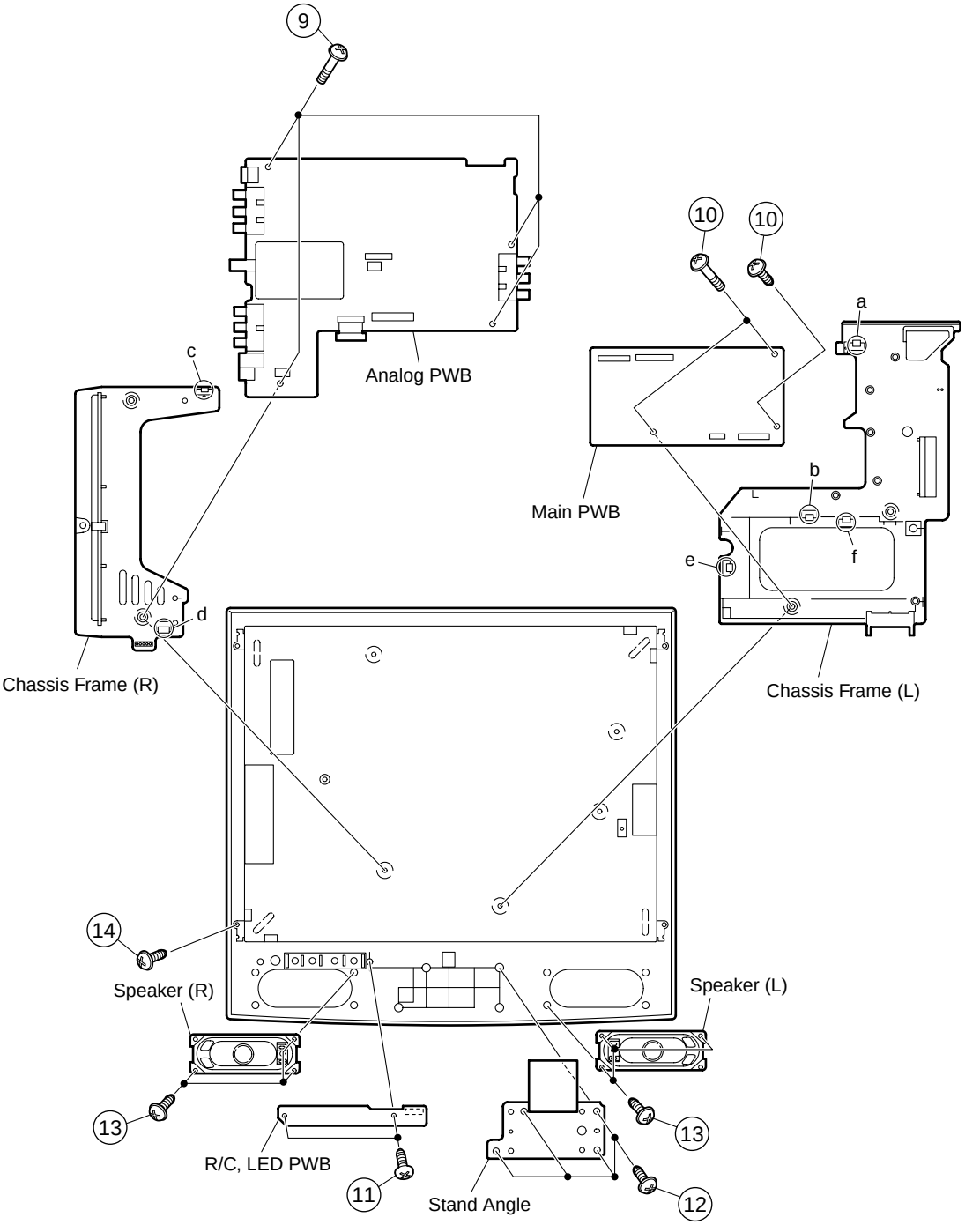




9. Remove the 4 lock screws from the analog PWB, and undo the claws a and b. Detach the chassis frame (left) from the analog PWB by pulling out the terminals. In the same way, undo the claws c and d, and detach the chassis frame (right) from the analog PWB by pulling out the terminals.
10. Remove the 3 lock screws from the main PWB, and undo the claws e and f. Detach the main PWB by lifting the area around the claws and pulling the PWB out.

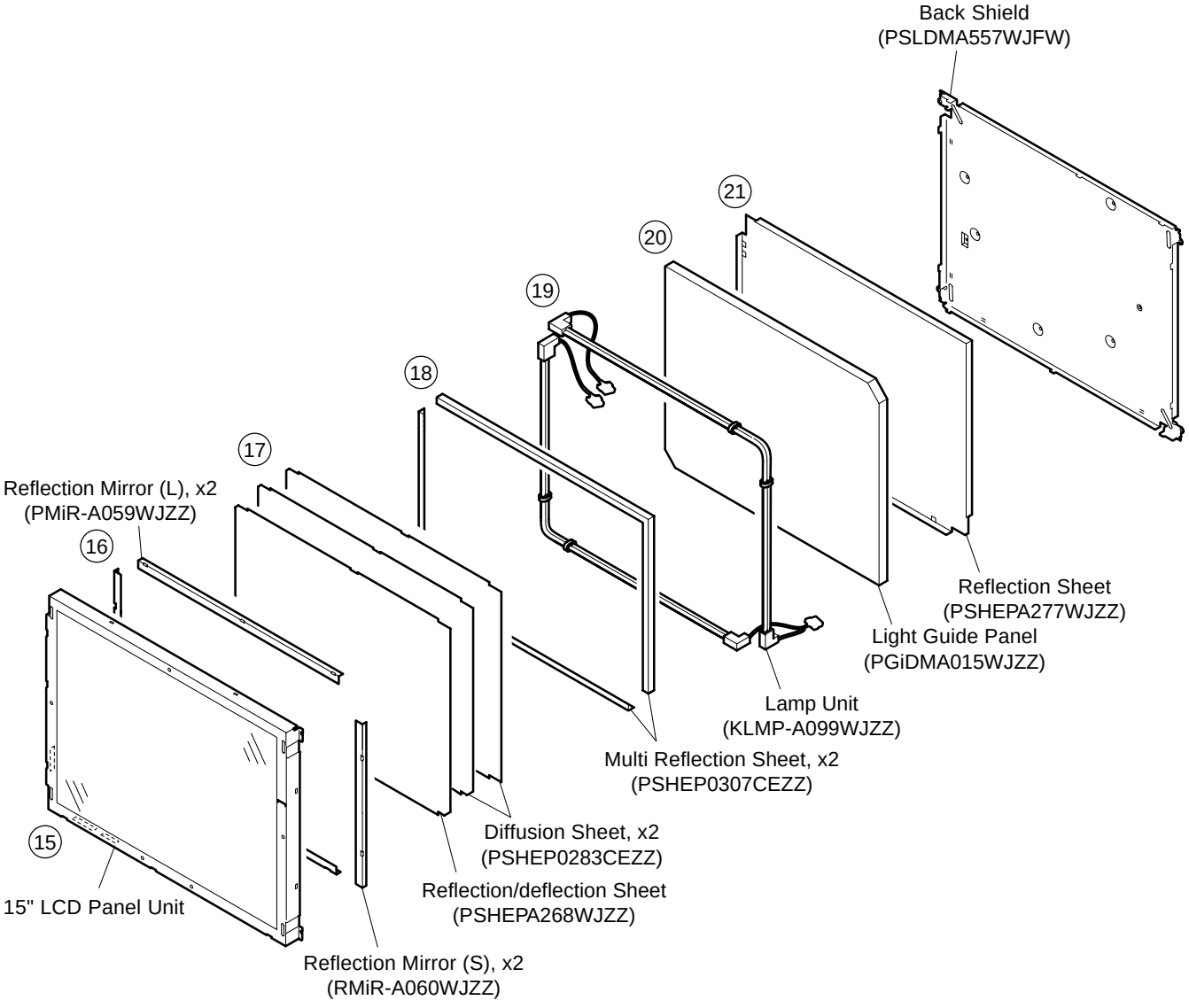
Note: When detaching the main PWB and analog PWB, be careful not to break the PWB-fixing claws.

11. Remove the R/C, LED PWB fixing screws (2 pcs.)
12. Remove the stand angle fixing screws (4 pcs.)
13. Remove the 3 lock screws each from the right and left speakers and take out both the speakers.
14. Remove the LCD panel unit fixing screw (1 pc).



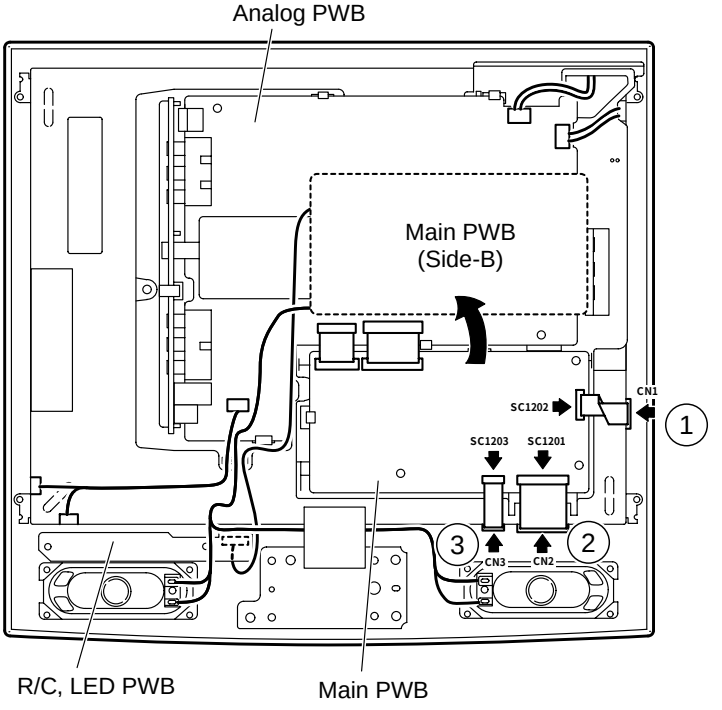
- Precautions in handling the LCD panels
  1. Work in a clean room (with humidities below 50%).
  2. Be sure to wear an anti-static armband.
  3. Handle the panels on an electro-conductive mat.
  4. Be careful not to fall, shake and shock the panels.

15. Detach the LCD panel.
16. Detach the four reflection mirrors.
17. Detach the reflection/deflection sheet and diffusion sheets.
18. Detach the two multi reflection sheets.
19. Remove the lamp unit.
20. Detach the light guide panel.
21. Detach the reflection sheet.



●Precautions in servicing the B side (backside) of the main PWB unit

1. Disconnect the FFC from between the main PWB (SC1202) and LCD panel unit (CN1), and then connect the service-specific extension FFC (flat cable) (QCNW-B784WJZZ).
2. Disconnect the FFC from between the main PWB (SC1201) and LCD panel unit (CN2), and then connect the service-specific extension FFC (flat cable) (QCNW-A556WJZZ).
3. Disconnect the FFC from between the main PWB (SC1203) and LCD panel unit (CN3), and then connect the service-specific extension FFC (flat cable) (QCNW-A555WJZZ).
4. Remove the lock screws from the main PWB, detach the PWB from the chassis frame, and then turn it over to service.



Step	Part No.	Description
1	QCNW-B784WJZZ	Extension Cable 30-pin Main (SC1202)-LCD Panel (CN1)
2	QCNW-A556WJZZ	Extension Cable 50-pin Main (SC1201)-LCD Panel (CN2)
3	QCNW-A555WJZZ	Extension Cable 20-pin Main (SC1203)-LCD Panel (CN3)

ADJUSTING PROCEDURE OF EACH SECTION

The products have been factory-adjusted to the best settings. If any of them gets out of point or readjustment is needed due to a part replacement, take the following adjustment procedures.

1. Pre-adjustment preparations

Keep the AC power cable directly plugged in a wall outlet.

2. Adjustment procedures

- Power on (initialization) → Model number and screen size settings → Transfer of model-related data (I2C) to setting E2PROM
- Common bias adjustment → TAMP adjustment → White balance (cut-off and gain) adjustment

3. Entering the adjustment process mode

3-1. Calling the adjustment process mode

- Turn on the power and press the "ADJUST PROCESS" key on the remote controller.
- For servicing, hold down the "INPUT" and "VOL (–)" keys at once, and turn on the power switch.
  ("K" appears at the top left onscreen to indicate that the adjustment process mode is on.)
  Press the "CH (∨)" and "VOL (–)" keys at once. (The adjustment process mode screen shows up.)
  To quit the mode, turn off the power (using the power switch on the set or the remote controller).

4. Key operation

■Basic operation

Selecting a receiving channel

- Using the "CH (∧)/(∨)" keys, select an actual receiving channel.
  Instant press: Channels are selected one by one.
  Continuous press: The next receivable channel is searched and selected.
- Various adjustments
  Using the "MENU", "cursor" and "VOL (+)/(–)" keys (on the set and the remote controller), adjust the settings of each item.
- Using the "cursor UP/DOWN" keys, select an adjustment item.
- Press the "MENU" key, and the adjustment items will be selected one after another (to the next item).
  When the item at the bottom of a page is selected, the press on the "MENU" key advances to the top item on the next page.
- Even if any item is selected, the press on the "PRESET" key advances to the top item on the next page.
  Page 1 → Page 2 → Page 3 → Page 9 → Page 1 ···
- Even if any item is selected, the press on the "MANUAL MEMORY" key moves back to the top item on the same page.
- Using the "cursor RIGHT/LEFT" and "VOL (+)/(–)" keys, turn up and down the settings of a selected item.

■Hierarchical shift

- Press the "ENTER" key on any item other than I2C DATA on Page 4, the setting page of the item will show up.
- To quit the setting page, press the "PREVIOUS SCREEN" key.

5. Take the following procedure when IC2009 (EEPROM) has been initialized or IC2001 (microprocessor) replaced.

5-1. Connect pins (81) and (82) of IC2001 (microprocessor) to GND, and turn on the power.
5-2. Make sure "15" (inches) is selected for the screen size.
5-3. Make sure the model number "A631B" is selected.

(Onscreen display of adjustment process menu page 1)

	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26
0	1																										
1		▶	M	O	D	E	L															A	6	3	1	B	
2			I	N	C	H		S	I	Z	E														1	5	
3			E	R	R	O	R		N	O		R	E	S	E	T										0	
4			P	U	B	L	I	C		M	O	D	E											O	F	F	
5			V	−	C	H	I	P																		1	
6			E	X	T		C	O	N	T	R	O	L											O	F	F	

6. Adjustments

6-1. Common bias adjustment
1) Select the "COM BIAS" mode on adjustment process menu page 2. Press the "cursor RIGHT/LEFT" keys to generate the built-in signal.
2) Using the "cursor RIGHT/LEFT" keys, readjust the setting so that flickering gets to minimum.
3) To quit the built-in signal pattern, press the "cursor UP/DOWN" keys. The adjustment process mode screen reappears.

6-2. TAMP adjustment
1) Feed the 100% white raster signal through the antenna input.
2) See if the "YDATA" reading on adjustment process menu page 2 is within the range in the table below. If not, select the "NTSC TAMP" item on the same page. Press the "cursor RIGHT/LEFT" keys to scroll down the item. Using the "cursor RIGHT/LEFT" keys again, readjust the "YDATA" reading to within the range shown below.
Then add 6 to the "NTSC TAMP" setting and enter this value for "PAL-M TAMP" and "PAL-N TAMP".
3) Finally press the "cursor UP/DOWN" keys to return to the adjustment process mode screen.

Model	LC-15S4U-S
Setting (NTSC)	155-158

Reference
(Onscreen display of adjustment process menu page 2)

	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26
0	2																										
1		▶	C	O	M		B	I	A	S												1	2	0			
2			T	A	M	P		L														1	5	5			
3			Y	D	A	T	A															1	5	8			
4			T	A	M	P		H														1	5	8			
5			N	T	S	C		T	A	M	P												9	0			
6			P	A	L	−	M		T	A	M	P											9	6			
7			P	A	L	−	N		T	A	M	P											9	6			
8																											

Y data
(white 100%)

6-3. White balance adjustment

1) Adjustment procedure

Adjustment process menu page 3: RGB CUTOFF2, RGB-GAIN Feed the 40% white signal. Move the R-CUTOFF2 and B-CUTOFF2 settings within ±30 to adjust the white balance. Next feed the 80% white signal. Reduce the GAIN settings of two stronger of the R, G and B colors by 30 to adjust the white balance. Taking these steps alternately, finely adjust the white balance.

Reference: White balance process adjustment values

(1) Test signal adjustment

			Adjustment spec.
White 80%	x	0.282	±0.004
	y	0.291	±0.004
White 40%	x	0.262	±0.002
	y	0.269	±0.002

[Adjusting with the bus]

Cut-off (RGB CUTOFF2) Fix the G setting at 0. Vary the R and B settings. Adjustable range ±30.

Gain (RGB GAIN): Reduce the settings of the two stronger colors. Adjusted down to -30.

(The values are based on the Minolta CA-210.)

7. Factory settings

7-1. Making factory settings

1) Hold down the "INPUT" and "VOL (–)" keys at once, and turn on the power switch.
"K" appears at the top left onscreen to indicate that the inspection process mode is on.

2) Hold down the "CH (∧)" and "VOL (+)" keys. A few seconds later, "SETTING COMPLETE" appears at the center of the screen. Now the factory settings are complete.

7-2. Description of Factory Settings.

							Setting content/range	Initial Value	(AV1)	(AV2)	(COMPONENT1)	
MENU	PICTURE	AV MODE					STANDARD/DYNAMIC/DYNAMIC(FIXED)/MOVIE/GAME	DYNAMIC	DYNAMIC	DYNAMIC	DYNAMIC	
		OPC					ON/OFF	OFF				
		BACKLIGHT					BRIGHT/NORMAL/DARK/VARIABLE	VARIABLE				
								(STANDARD)	(DYNAMIC)	(DYNAMIC(FIXED)	(MOVIE)	(GAME)
							1 (DARK) ~9 (NORMAL)~17 (BRIGHT)	17	17	17	7	9
		CONTRAST					0~60	30	45	60	25	30
		BRIGHTNESS					-30~+30	0	0	0	0	0
		COLOR					-30~+30	0	+5	+10	0	0
		TINT					-30~+30	0	0	0	0	0
		SHARPNESS					-10~+10	0	0	0	0	0
		ADVANCED	COLOR TEMP.				USER/HIGH/MIDDLE/LOW	MIDDLE				
			RED				-30~+30	0				
			GREEN				-30~+30	0				
			BLUE				-30~+30	0				
			RESET				YES/NO	NO				
		RESET					YES/NO	NO				
	AUDIO	TREBLE					-10~+10	0				
		BASS					-10~+10	0				
		BALANCE					-10(L)~+10(R)	0				
		RESET					YES/NO	NO				
	SETUP	CH-SETTING	EZ-SETUP				YES/NO	YES				
				LANGUAGE			ENGLISH/ESPANOL/FRANCAIS	ENGLISH				
				CH SETTING			ON/OFF	ON				
				AUTO CLOCK			ON/OFF	ON				
				START			YES/NO	YES				
			AIR/CABLE				AIR/CABLE	AIR				
			CH SEARCH				-	-				
			CH MEMORY				-	-				
		MTS					STEREO/SAP/MONO	STEREO				
		CLOCK	SET				AUTO/MANUAL	AUTO				
				AUTO			AUTO/[2]~[69] or [1]~[125]	AUTO				
				MANUAL	DST		ON/OFF	OFF				
					TIME		12:00AM~11:59PM	12:00AM				
			TIME DISPLAY				ON/OFF	ON				
		INPUT3 IN/OUT					IN/OUTO/OUT ×	IN				
		V-CHIP BLOCK	SECRET No.				4 digits input	Clear				
			MPAA	G			(NONE)/BLOCK	NONE				
				PG			(NONE)/BLOCK	NONE				
				PG-13			(NONE)/BLOCK	NONE				
				R			(NONE)/BLOCK	NONE				
				NC-17			(NONE)/BLOCK	NONE				
				X			(NONE)/BLOCK	NONE				
			TV GUIDELINES	TV-Y			(NONE)/BLOCK	NONE				
				TV-Y7			(NONE)/BLOCK	NONE				
				TV-G			(NONE)/BLOCK	NONE				
				TV-PG			(NONE)/BLOCK	NONE				
				TV-14			(NONE)/BLOCK	NONE				
				TV-MA			(NONE)/BLOCK	NONE				
				BLOCK CONTENT	D		(BLANK)/BLOCK	BLANK	(UN BLOCK)			
					L		(BLANK)/BLOCK	BLANK	(UN BLOCK)			
					S		(BLANK)/BLOCK	BLANK	(UN BLOCK)			
					V		(BLANK)/BLOCK	BLANK	(UN BLOCK)			
					FV		(BLANK)/BLOCK	BLANK	(UN BLOCK)			
			CAN.ENGLISH RATINGS	C			(NONE)/BLOCK	NONE				
				C8+			(NONE)/BLOCK	NONE				
				G			(NONE)/BLOCK	NONE				
				PG			(NONE)/BLOCK	NONE				
				14+			(NONE)/BLOCK	NONE				
				18+			(NONE)/BLOCK	NONE				
			CAN.FRENCH RATINGS	G			(NONE)/BLOCK	NONE				
				8 ans+			(NONE)/BLOCK	NONE				
				13 ans+			(NONE)/BLOCK	NONE				
				16 ans+			(NONE)/BLOCK	NONE				
				18 ans+			(NONE)/BLOCK	NONE				
			STATUS				ON/OFF	OFF				
		CLOSED CAPTION					OFF/CC1/CC2/T1/T2	OFF				
								(TV)	(AV1)	(AV2)		
		COLOR SYSTEM	20				N358/N443/PAL/PAL-M/PAL-N/SECAM/PAL60	N358	N358	N358		
							(Only for N358/PAL-M/PAL-N in TV mode)					
		LANGUAGE					ENGLISH/ESPANOL/FRANCAIS	ENGLISH				
	OPTION	VIEW MODE					4:3/16:9/ZOOM/STRETCH	4:3				
		AUDIO ONLY					ON/OFF	OFF				
		BLUE SCREEN					ON/OFF	OFF				
		SLEEP TIMER					OFF/30/60/90/120/150MIN	OFF(Clear)				
		WAKE UP TIMER	TIMER				ON/OFF	OFF				
			TIME				12:00AM~11:59PM	12:00AM				
			CHANNEL				CH1~125/COMPONENT1/COMPONENT2 or AV1/AV2	CH2				
			VOL.				0~60	20				
		NO SIGNAL OFF					ENABLE/DISABLE	DISABLE				
		NO OPERATION OFF					ENABLE/DISABLE	DISABLE				
		PICTURE FLIP					NORMAL/MIRROR/ROTATE/UPSIDE DOWN	NORMAL				

(Items other than MENU)

EZ SETUP	ON
LAST CHANNEL	2ch
LAST TV/INPUT	TV
FLASH BACK	2ch
SKIP DATA_CATV	ALL SKIP
SKIP DATA_AIR	ALL SKIP
VOLUME	20
LINE OUT LEVEL(VAO)	0
EDS CH (AUTO)	

8. Lamp error detection

8-1. Functional description

This LCD color television has a function (lamp error detection) to be turned off automatically for safety when the lamp or lamp circuit is abnormal.

If the lamp or lamp circuit is abnormal, or some other errors happen, and the lamp error detection is executed, the followings occur.

① The main unit of television is turned off 5 seconds after it is turned on. (The power LED on the front side of TV turns from green to red.)

② If the situation ① happens 5 times sequentially, television can not be turned on. (The power LED remains red.)

8-2. Countermeasures

8-2-1. Check when turning off the lamp error detection

When television is turned off by the lamp error detection mentioned above, it enters the adjustment process with the power LED red. Entering the adjustment process turns off the error detection and turns on TV.

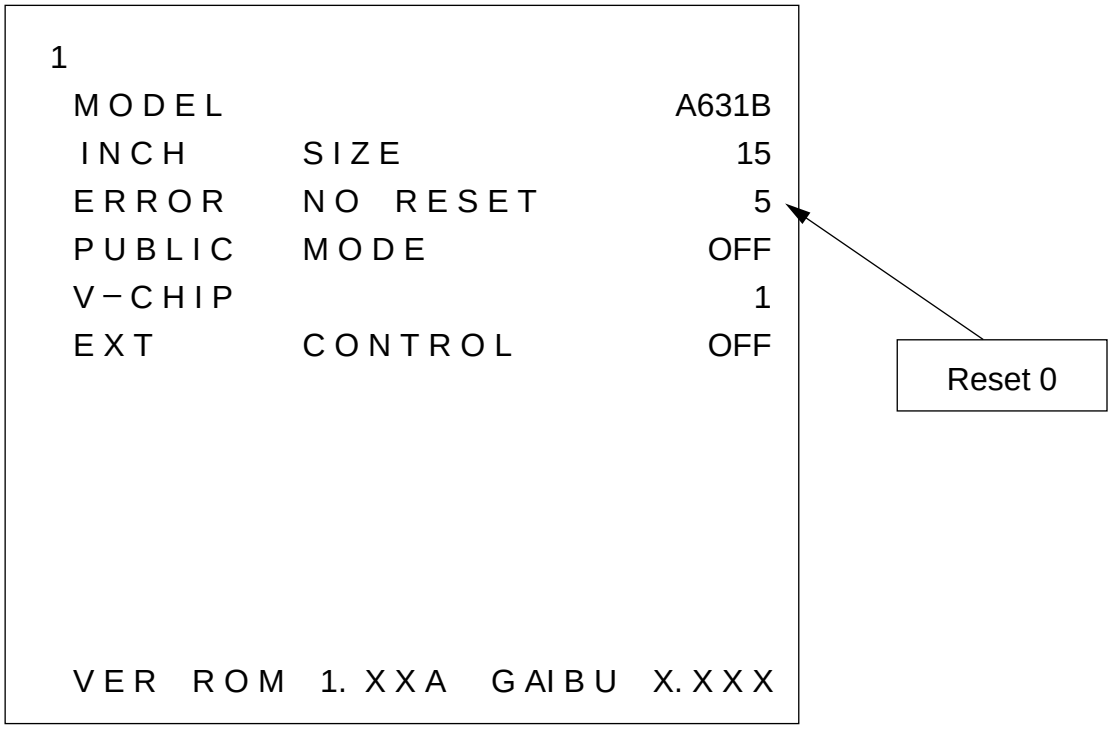
This enables the operation check to detect errors in the lamp or lamp circuit.

Check whether "ERROR NO RESET" on line 4, page 1 of the adjustment process is 1 or more. If it is 1 or more, it indicates the lamp error detection was executed.

8-2-2. Resetting of the lamp error count

After confirming that the lamp or lamp circuit is normal, reset the lamp error count. Select "ERROR NO RESET" on line 4, page 1 of the adjustment process and set the number to 0 using the "VOL (+)/(–)" keys.

Page 1 of the adjustment process



Afterwards, perform the operation check to confirm that the lamp error detection does not function.

LIST OF THE ADJUSTMENT PROCESS MODE MENU

For calling the adjustment process mode and keying in this mode, refer back to "ADJUSTING PROCEDURE OF EACH SECTION".

ADJUSTMENT PROCESS 1st LEVEL ITEM DEFAULT TABLE

Page No.	Item	Initial Value	Function	Response precautions on servicing (Do not change other items than designated.)
BASIC SETTINGS				
1	MODEL	A631B	MODEL NUMBER SELECT	NOT MODIFIABLE
	INCH SIZE	15	SCREEN SIZE SELECT (20-INCH AND 13/15-INCH SETTINGS NOT SWITCHABLE IN CASE OF DIFFERENT SYSTEMS)	USED FOR ADJUSTMENT PROCESS INITIALIZATION, NOT MODIFIABLE FOR OTHER CASES. DATA REWRITE AND READJUSTMENT REQUIRED WHEN INITIALIZED.
	ERROR NO RESET	0	LAMP ERROR COUNT AND RESET	SEE THE LAMP ERROR DETECTION.
	PUBLIC MODE	OFF	HOTEL MODE SETTING	NOT USED
	V-CHIP	1	VCHIP LINE MUTE SETTING	NOT USED
	EXT CONTROL	ON	BUS, UART OPEN	NOT USED
	ROM AND GAIBU VERSION NUMBERS DISPLAYED AT THE BOTTOM.			
VIDEO ADJUSTMENT				
2	COM BIAS	120	COMMON BIAS ADJUSTMENT	SEE THE ADJUSTMENT PROCEDURES.
	TAMP L	155	Y LOWER LIMIT SETTING AT TAMP ADJUSTMENT	NOT USED
	YDATA	—	DATA READ VALUE AT TAMP ADJUSTMENT	SEE THE ADJUSTMENT PROCEDURES.
	TAMP H	158	Y UPPER LIMIT SETTING AT TAMP ADJUSTMENT	NOT USED
	NTSC TAMP	90	TAMP ADJUSTMENT	SEE THE ADJUSTMENT PROCEDURES.
	PAL-M TAMP	96	TAMP ADJUSTMENT	SEE THE ADJUSTMENT PROCEDURES.
	PAL-N TAMP	96	TAMP ADJUSTMENT	SEE THE ADJUSTMENT PROCEDURES.
BACKGROUND ADJUSTMENT				
3	R CUTOFF2	0	RED CUT-OFF ADJUSTMENT 2	SEE THE ADJUSTMENT PROCEDURES.
	G CUTOFF2	0	GREEN CUT-OFF ADJUSTMENT 2	SEE THE ADJUSTMENT PROCEDURES.
	B CUTOFF2	0	BLUE CUT-OFF ADJUSTMENT 2	SEE THE ADJUSTMENT PROCEDURES.
	R-GAIN	0	WHITE BALANCE ADJUSTMENT 2	SEE THE ADJUSTMENT PROCEDURES.
	G-GAIN	0	WHITE BALANCE ADJUSTMENT 2	SEE THE ADJUSTMENT PROCEDURES.
	B-GAIN	0	WHITE BALANCE ADJUSTMENT 2	SEE THE ADJUSTMENT PROCEDURES.
	RGB GAMMA	1.0	RGB γ COEFFICIENT SETTING	NOT USED
TABLE OF VARIOUS SETTINGS				
9	I2C DATA	0	I2C BUS CONTROL IC DATA WRITE AND READ	NOT USED
	I2C DATA	WAIT	WRITE AND READ EXECUTED	NOT USED
	SOUND	—	SHIFT TO THE SOUND ADJUSTMENT PAGE	USE ENTER KEY TO GO TO THE SOUND ADJUSTMENT PAGE.
	DVP	—	SHIFT TO THE DVP ADJUSTMENT PAGE	USE ENTER KEY TO GO TO THE TC ADJUSTMENT PAGE.
	TUNER	—	SHIFT TO THE TUNER ADJUSTMENT PAGE	USE ENTER KEY TO GO TO THE TUNER ADJUSTMENT PAGE.
	OTHERS	—	SHIFT TO THE OTHER ADJUSTMENT PAGE	USE ENTER KEY TO GO TO THE OTHER ADJUSTMENT PAGE.

AUDIO ADJUSTMENT PROCESS SPECIFICATIONS

Page No.	Item	Initial Value	Function	Response precautions on servicing (Do not change other items than designated.)
AUDIO ADJUSTMENT				
SOUND1	VOLUME	20	SOUND VOLUME	NOT USED
	MSP DATA	0	AUDIO IC MSP DATA WRITE AND READ	NOT USED
	MSP DATA	WAIT	WRITE AND READ EXECUTED	NOT USED
	CARRIER MUTE	ON	AUDIO OUTPUT SETTING WITHOUT TV SYNC	NOT USED
	IGR THR	12D	IGR THRESH LEVEL	NOT USED
AUDIO ADJUSTMENT				
SOUND2	PRESCALE SCART	27	PRE-SCALE SETTING (EXTERNAL INPUT)	NOT USED
	PRESCALE FM/AM-M	31	PRE-SCALE SETTING (TV)	NOT USED

Page No.	Item	Initial Value	Function	Response precautions on servicing (Do not change other items than designated.)

AUDIO ADJUSTMENT

SOUND3	BAND1 MIN	TV	-0350	EQUALIZER SETTING (WITH TV INPUT)	NOT USED
		OTHER	-0350	EQUALIZER SETTING (WITH OTHER INPUT THAN TV)	NOT USED
	BAND1 CNT	TV	+0450	EQUALIZER SETTING (WITH TV INPUT)	NOT USED
		OTHER	+0450	EQUALIZER SETTING (WITH OTHER INPUT THAN TV)	NOT USED
	BAND1 MAX	TV	+1200	EQUALIZER SETTING (WITH TV INPUT)	NOT USED
		OTHER	+1200	EQUALIZER SETTING (WITH OTHER INPUT THAN TV)	NOT USED
	BAND2 MIN	TV	+0100	EQUALIZER SETTING (WITH TV INPUT)	NOT USED
		OTHER	+0100	EQUALIZER SETTING (WITH OTHER INPUT THAN TV)	NOT USED
	BAND2 CNT	TV	+0400	EQUALIZER SETTING (WITH TV INPUT)	NOT USED
		OTHER	+0400	EQUALIZER SETTING (WITH OTHER INPUT THAN TV)	NOT USED
	BAND2 MAX	TV	+0700	EQUALIZER SETTING (WITH TV INPUT)	NOT USED
		OTHER	+0700	EQUALIZER SETTING (WITH OTHER INPUT THAN TV)	NOT USED
	BAND3 MIN	TV	-0225	EQUALIZER SETTING (WITH TV INPUT)	NOT USED
		OTHER	-0225	EQUALIZER SETTING (WITH OTHER INPUT THAN TV)	NOT USED

AUDIO ADJUSTMENT

SOUND4	BAND4 MIN	TV	-0825	EQUALIZER SETTING (WITH TV INPUT)	NOT USED
		OTHER	-0825	EQUALIZER SETTING (WITH OTHER INPUT THAN TV)	NOT USED
	BAND4 CNT	TV	-0525	EQUALIZER SETTING (WITH TV INPUT)	NOT USED
		OTHER	-0525	EQUALIZER SETTING (WITH OTHER INPUT THAN TV)	NOT USED
	BAND4 MAX	TV	-0225	EQUALIZER SETTING (WITH TV INPUT)	NOT USED
		OTHER	-0225	EQUALIZER SETTING (WITH OTHER INPUT THAN TV)	NOT USED
	BAND5 MIN	TV	-1200	EQUALIZER SETTING (WITH TV INPUT)	NOT USED
		OTHER	-1200	EQUALIZER SETTING (WITH OTHER INPUT THAN TV)	NOT USED
	BAND5 CNT	TV	-0550	EQUALIZER SETTING (WITH TV INPUT)	NOT USED
		OTHER	-0550	EQUALIZER SETTING (WITH OTHER INPUT THAN TV)	NOT USED
	BAND5 MAX	TV	+0250	EQUALIZER SETTING (WITH TV INPUT)	NOT USED
		OTHER	+0250	EQUALIZER SETTING (WITH OTHER INPUT THAN TV)	NOT USED

AUDIO ADJUSTMENT PROCESS SPECIFICATIONS

Page No.	Item	Initial Value	Function	Response precautions on servicing (Do not change other items than designated.)

VIDEO ADJUSTMENT

DVP1	DVP DATA 0000 F0 ------(----)	-	DVP-RELATED GENERAL-PURPOSE VARIABLE SETTINGS	NOT USED
	DVP TEST PATTERN	0	TEST PATTERN SELECT	SEE THE ADJUSTMENT PROCESS MODE TEST PATTERNS.
	VCDOFFSET	15	VERTICAL COUNT-DOWN MINIMUM OSCILLATION CYCLE	NOT USED
	VCDWINDOW	30	VERTICAL COUNT-DOWN SYNC RANGE	NOT USED

VIDEO ADJUSTMENT

DVP3	N358 TV CONTRAST	128	IMAGE SETTING (TV)	NOT USED
	N358 AV CONTRAST	128	IMAGE SETTING (COMPOSITE, S VIDEO)	NOT USED
	N358 TV BRIGHT	128	BRIGHTNESS SETTING (TV)	NOT USED
	N358 AV BRIGHT	128	BRIGHTNESS SETTING (COMPOSITE, S VIDEO)	NOT USED
	N358 TV COLOR	37	COLOR DENSITY SETTING (TV)	NOT USED
	N358 AV COLOR	37	COLOR DENSITY SETTING (COMPOSITE, S VIDEO)	NOT USED
	N358 TV TINT	128	TINT SETTING (TV)	NOT USED
	N358 AV TINT	128	TINT SETTING (COMPOSITE, S VIDEO)	NOT USED
	N358 TV SHARP V	100	V PICTURE QUALITY SETTING (TV)	NOT USED
	N358 AV SHARP V	100	V PICTURE QUALITY SETTING (COMPOSITE, S VIDEO)	NOT USED
	N358 TV SHARP H1	200	H PICTURE QUALITY SETTING 1 (TV)	NOT USED
	N358 AV SHARP H1	200	H PICTURE QUALITY SETTING 1 (COMPOSITE, S VIDEO)	NOT USED
	N358 TV SHARP H2	150	H PICTURE QUALITY SETTING 2 (TV)	NOT USED
	N358 AV SHARP H2	160	H PICTURE QUALITY SETTING 2 (COMPOSITE, S VIDEO)	NOT USED

Page No.	Item	Initial Value	Function	Response precautions on servicing (Do not change other items than designated.)
VIDEO ADJUSTMENT				
DVP4	N443 AV CONTRAST	128	IMAGE SETTING (COMPOSITE, S VIDEO)	NOT USED
	N443 AV BRIGHT	128	BRIGHTNESS SETTING (COMPOSITE, S VIDEO)	NOT USED
	N443 AV COLOR	37	COLOR DENSITY SETTING (COMPOSITE, S VIDEO)	NOT USED
	N443 AV TINT	128	TINT SETTING (COMPOSITE, S VIDEO)	NOT USED
	N443 AV SHARP V	100	V PICTURE QUALITY SETTING (COMPOSITE, S VIDEO)	NOT USED
	N443 AV SHARP H1	200	H PICTURE QUALITY SETTING 1 (COMPOSITE, S VIDEO)	NOT USED
	N443 AV SHARP H2	160	H PICTURE QUALITY SETTING 2 (COMPOSITE, S VIDEO)	NOT USED
VIDEO ADJUSTMENT				
DVP5	PAL AV CONTRAST	128	IMAGE SETTING (COMPOSITE, S VIDEO)	NOT USED
	PAL AV BRIGHT	128	BRIGHTNESS SETTING (COMPOSITE, S VIDEO)	NOT USED
	PAL AV COLOR	37	COLOR DENSITY SETTING (COMPOSITE, S VIDEO)	NOT USED
	PAL AV TINT	128	TINT SETTING (COMPOSITE, S VIDEO)	NOT USED
	PAL AV SHARP V	100	V PICTURE QUALITY SETTING (COMPOSITE, S VIDEO)	NOT USED
	PAL AV SHARP H1	200	H PICTURE QUALITY SETTING 1 (COMPOSITE, S VIDEO)	NOT USED
	PAL AV SHARP H2	160	H PICTURE QUALITY SETTING 2 (COMPOSITE, S VIDEO)	NOT USED
VIDEO ADJUSTMENT				
DVP6	SECAM AV CONTRAST	128	IMAGE SETTING (COMPOSITE, S VIDEO)	NOT USED
	SECAM AV BRIGHT	128	BRIGHTNESS SETTING (COMPOSITE, S VIDEO)	NOT USED
	SECAM AV COLOR	37	COLOR DENSITY SETTING (COMPOSITE, S VIDEO)	NOT USED
	SECAM AV TINT	128	TINT SETTING (COMPOSITE, S VIDEO)	NOT USED
	SECAM AV SHARP V	100	V PICTURE QUALITY SETTING (COMPOSITE, S VIDEO)	NOT USED
	SECAM AV SHARP H1	200	H PICTURE QUALITY SETTING 1 (COMPOSITE, S VIDEO)	NOT USED
	SECAM AV SHARP H2	160	H PICTURE QUALITY SETTING 2 (COMPOSITE, S VIDEO)	NOT USED
VIDEO ADJUSTMENT				
DVP7	PAL60 AV CONT	128	IMAGE SETTING (COMPOSITE, S VIDEO)	NOT USED
	PAL60 AV BRIGHT	128	BRIGHTNESS SETTING (COMPOSITE, S VIDEO)	NOT USED
	PAL60 AV COLOR	37	COLOR DENSITY SETTING (COMPOSITE, S VIDEO)	NOT USED
	PAL60 AV TINT	128	TINT SETTING (COMPOSITE, S VIDEO)	NOT USED
	PAL60 AV SHARP V	100	V PICTURE QUALITY SETTING (COMPOSITE, S VIDEO)	NOT USED
	PAL60 AV SHARP H1	200	H PICTURE QUALITY SETTING 1 (COMPOSITE, S VIDEO)	NOT USED
	PAL60 AV SHARP H2	160	H PICTURE QUALITY SETTING 2 (COMPOSITE, S VIDEO)	NOT USED
VIDEO ADJUSTMENT				
DVP8	PAL-M TV CONTRAST	128	IMAGE SETTING (TV)	NOT USED
	PAL-M AV CONTRAST	128	IMAGE SETTING (COMPOSITE, S VIDEO)	NOT USED
	PAL-M TV BRIGHT	128	BRIGHTNESS SETTING (TV)	NOT USED
	PAL-M AV BRIGHT	128	BRIGHTNESS SETTING (COMPOSITE, S VIDEO)	NOT USED
	PAL-M TV COLOR	37	COLOR DENSITY SETTING (TV)	NOT USED
	PAL-M AV COLOR	37	COLOR DENSITY SETTING (COMPOSITE, S VIDEO)	NOT USED
	PAL-M TV TINT	128	TINT SETTING (TV)	NOT USED
	PAL-M AV TINT	128	TINT SETTING (COMPOSITE, S VIDEO)	NOT USED
	PAL-M TV SHARP V	100	V PICTURE QUALITY SETTING (TV)	NOT USED
	PAL-M AV SHARP V	100	V PICTURE QUALITY SETTING (COMPOSITE, S VIDEO)	NOT USED
	PAL-M TV SHARP H1	200	H PICTURE QUALITY SETTING 1 (TV)	NOT USED
	PAL-M AV SHARP H1	200	H PICTURE QUALITY SETTING 1 (COMPOSITE, S VIDEO)	NOT USED
	PAL-M TV SHARP H2	150	H PICTURE QUALITY SETTING 2 (TV)	NOT USED
	PAL-M AV SHARP H2	160	H PICTURE QUALITY SETTING 2 (COMPOSITE, S VIDEO)	NOT USED

Page No.	Item	Initial Value	Function	Response precautions on servicing (Do not change other items than designated.)

VIDEO ADJUSTMENT

DVP9	PAL-N TV CONTRAST	128	IMAGE SETTING (TV)	NOT USED
	PAL-N AV CONTRAST	128	IMAGE SETTING (COMPOSITE, S VIDEO)	NOT USED
	PAL-N TV BRIGHT	128	BRIGHTNESS SETTING (TV)	NOT USED
	PAL-N AV BRIGHT	128	BRIGHTNESS SETTING (COMPOSITE, S VIDEO)	NOT USED
	PAL-N TV COLOR	37	COLOR DENSITY SETTING (TV)	NOT USED
	PAL-N AV COLOR	37	COLOR DENSITY SETTING (COMPOSITE, S VIDEO)	NOT USED
	PAL-N TV TINT	128	TINT SETTING (TV)	NOT USED
	PAL-N AV TINT	128	TINT SETTING (COMPOSITE, S VIDEO)	NOT USED
	PAL-N TV SHARP V	100	V PICTURE QUALITY SETTING (TV)	NOT USED
	PAL-N AV SHARP V	100	V PICTURE QUALITY SETTING (COMPOSITE, S VIDEO)	NOT USED
	PAL-N TV SHARP H1	200	H PICTURE QUALITY SETTING 1 (TV)	NOT USED
	PAL-N AV SHARP H1	200	H PICTURE QUALITY SETTING 1 (COMPOSITE, S VIDEO)	NOT USED
	PAL-N TV SHARP H2	150	H PICTURE QUALITY SETTING 2 (TV)	NOT USED
	PAL-N AV SHARP H2	160	H PICTURE QUALITY SETTING 2 (COMPOSITE, S VIDEO)	NOT USED

VIDEO ADJUSTMENT

DVP10	525I CONT	133	IMAGE SETTING (TV)	NOT USED
	525I BRIGHT	128	BRIGHTNESS SETTING (TV)	NOT USED
	525I COLOR	52	COLOR DENSITY SETTING (TV)	NOT USED
	525I TINT	128	TINT SETTING (TV)	NOT USED
	525I SHARP V	100	V PICTURE QUALITY SETTING (TV)	NOT USED
	525I SHARP H1	160	H PICTURE QUALITY SETTING 1 (TV)	NOT USED
	525I SHARP H2	160	H PICTURE QUALITY SETTING 2 (TV)	NOT USED
	525P CONT	119	IMAGE SETTING (COMPOSITE, S VIDEO)	NOT USED
	525P BRIGHT	147	BRIGHTNESS SETTING (COMPOSITE, S VIDEO)	NOT USED
	525P COLOR	52	COLOR DENSITY SETTING (COMPOSITE, S VIDEO)	NOT USED
	525P TINT	128	TINT SETTING (COMPOSITE, S VIDEO)	NOT USED
	525P SHARP V	100	V PICTURE QUALITY SETTING (TV)	NOT USED
	525P SHARP H1	120	H PICTURE QUALITY SETTING 1 (TV)	NOT USED
	525P SHARP H2	120	H PICTURE QUALITY SETTING 2 (TV)	NOT USED

VIDEO ADJUSTMENT

DVP11	625I CONT	133	IMAGE SETTING (TV)	NOT USED
	625I BRIGHT	128	BRIGHTNESS SETTING (TV)	NOT USED
	625I COLOR	52	COLOR DENSITY SETTING (TV)	NOT USED
	625I TINT	128	TINT SETTING (TV)	NOT USED
	625I SHARP V	100	V PICTURE QUALITY SETTING (TV)	NOT USED
	625I SHARP H1	160	H PICTURE QUALITY SETTING 1 (TV)	NOT USED
	625I SHARP H2	160	H PICTURE QUALITY SETTING 2 (TV)	NOT USED
	625P CONT	133	IMAGE SETTING (COMPOSITE, S VIDEO)	NOT USED
	625P BRIGHT	128	BRIGHTNESS SETTING (COMPOSITE, S VIDEO)	NOT USED
	625P COLOR	52	COLOR DENSITY SETTING (COMPOSITE, S VIDEO)	NOT USED
	625P TINT	128	TINT SETTING (COMPOSITE, S VIDEO)	NOT USED
	625I SHARP V	100	V PICTURE QUALITY SETTING (TV)	NOT USED
	625I SHARP H1	120	H PICTURE QUALITY SETTING 1 (TV)	NOT USED
	625I SHARP H2	120	H PICTURE QUALITY SETTING 2 (TV)	NOT USED

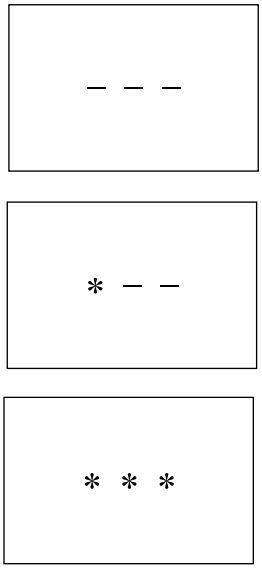
ADJUSTMENT PROCESS TUNER ITEM DEFAULT TABLE

Page No.	Item	Initial Value	Function	Response precautions on servicing (Do not change other items than designated.)
VIDEO ADJUSTMENT				
DVP12	1125I CONT	128	IMAGE SETTING (TV)	NOT USED
	1125I BRIGHT	128	BRIGHTNESS SETTING (TV)	NOT USED
	1125I COLOR	52	COLOR DENSITY SETTING (TV)	NOT USED
	1125I TINT	128	TINT SETTING (TV)	NOT USED
	1125I SHARP V	100	V PICTURE QUALITY SETTING (TV)	NOT USED
	1125I SHARP H1	100	H PICTURE QUALITY SETTING 1 (TV)	NOT USED
	1125I SHARP H2	100	H PICTURE QUALITY SETTING 2 (TV)	NOT USED
	750P CONT	128	IMAGE SETTING (COMPOSITE, S VIDEO)	NOT USED
	750P BRIGHT	128	BRIGHTNESS SETTING (COMPOSITE, S VIDEO)	NOT USED
	750P COLOR	92	COLOR DENSITY SETTING (COMPOSITE, S VIDEO)	NOT USED
	750P TINT	128	TINT SETTING (COMPOSITE, S VIDEO)	NOT USED
	750P SHARP V	100	V PICTURE QUALITY SETTING (TV)	NOT USED
	750P SHARP H1	100	H PICTURE QUALITY SETTING 1 (TV)	NOT USED
	750P SHARP H2	100	H PICTURE QUALITY SETTING 2 (TV)	NOT USED
TUNER SETTINGS				
TUNER1	AFT UP	1.80	AFT VOLTAGE REFERENCE LEVEL (ALL BANDS)	NOT USED
	AFT DOWN	1.20	AFT VOLTAGE REFERENCE LEVEL (ALL BANDS)	NOT USED
	LSYNC	150	SYNC JUDGMENT THRESHOLD (TV)	NOT USED
	HSYNC	162	SYNC JUDGMENT THRESHOLD (TV)	NOT USED
	AVSYNC	1	SYNC JUDGMENT THRESHOLD (EXTERNAL INPUT)	NOT USED
	COMPSYNC	3	SYNC JUDGMENT THRESHOLD (COLOR DIFFERENCE INPUT)	NOT USED
	EDS TEST	10	DURATION UNTIL JUDGMENT OF NO EDS TIME DATA (SECONDS)	NOT USED
TUNER SETTINGS				
TUNER2	AFT FARTIME	50	CHANNEL PRESET TIME ADJUSTMENT 1	NOT USED
	AFT NEARTIME	30	CHANNEL PRESET TIME ADJUSTMENT 2	NOT USED
	AFT NEARMTIME	10	CHANNEL PRESET TIME ADJUSTMENT 3	NOT USED
	AFT 1STEPTIME	10	CHANNEL PRESET TIME ADJUSTMENT 4	NOT USED
	AFT CSYNCTIME	50	CHANNEL PRESET TIME ADJUSTMENT 5	NOT USED
	SYNC ON	10	CHANNEL PRESET TIME ADJUSTMENT 6	NOT USED
	SYNC WIDTH	1	CHANNEL PRESET TIME ADJUSTMENT 7	NOT USED
OTHERS				
OTHERS1	DAC DATA 00---	—	DAC-RELATED GENERAL-PURPOSE VARIABLE SETTINGS	NOT USED
	L ERROR WAIT	15s	LAMP ERROR DETECT WAIT TIME	NOT USED
	L ERROR H TIME	1.0s	LAMP ERROR DETECT TIME	NOT USED
	TV AUTO GAIN	OFF	AUTO GAIN SETTING FOR TV	NOT USED
	PWM FREQ	150	DIMMER FREQUENCY SETTING (IN HZ)	NOT USED
	PWM DUTY	0	DIMMER DUTY SETTING	NOT USED
	OPC THRESHOLD	24	INPUT LEVEL THRESHOLD FROM BRIGHTNESS SENSOR STOP MODE TO OPERATION MODE	NOT USED
	HOTEL POWERFIX	OFF	USED FOR FIXED HOTEL MODE POWER ON	NOT USED
	COMP SYSTEM	AUTO	COMPONENT SIGNAL SELECT IN ADJUSTMENT PROCESS	NOT USED
	REMOCON CODE DISPLAYED AT THE BOTTOM			
OTHERS2	3D Y/C	0	3D ON/OFF SETTING	NOT USED
	3DY/C DATA	0	3D YC DATA WRITE AND READ	NOT USED
	3DY/C DATA	WAIT	WRITE AND READ EXECUTED	NOT USED
	KIL	OFF	FORCED KILLER SETTING FOR SIGNAL WITHOUT COLOR BURST	NOT USED
	CLOSED CAPTION	15	CLOSED CAPTION THRESH LEVEL	NOT USED

PUBLIC MODE SETTING PROCEDURE

1. How to start Public Mode

- There are the following two ways to get the public mode setup screen displayed.
  ① In the adjustment process mode, turn on "PUBLIC MODE". Also press the "CH (∧)" and "VOL (+)" keys on the set at once and turn on the power.
  ② 1) Press the "INPUT" and "VOL (+)" keys on the set at once and turn on the power.
  2) Get the password input screen displayed.



Procedure

- The input starts with the leftmost digit.
- Use the numeric keys [1] thru [9] and [10/0] keys on the remote controller. The other keys are not acceptable.
- With a numeric-key input, "–" will change to "*". The input position will move one digit to the right.
- With all the 3 digits entered, the password will be verified.

3) The 3-digit password is now verified.
The password [0] [2] [7] provides for the public mode screen. (This screen comes on with whatever adjustment process settings.)
With any other passwords, the screen changes to the normal mode.

2. How to exit Public Mode

There are the following ways to quit the public mode setup screen.

- Turn off "PUBLIC MODE" in the adjustment process mode. (☆) ← This way alone is not for quitting the setup screen, but for quitting the mode itself.
- Turn off the power with the "POWER" key. (★)
- Select "ENTER". (★)
- Move the cursor to "RESET" and press the "FLASHBACK" key. (Back to the normal mode screen)(☆)

★ ... "PUBLIC MODE" stays on in the adjustment process mode.
☆ ... The settings will be back to the factory ones.

3. Public Mode Setting Values

- With the factory settings made, the public mode settings get initialized. (The adjustment process remains intact.)

4. Public Mode Menu

The guidance is not displayed onscreen.
Setup procedure

- To move the cursor up and down, use the "cursor UP/DOWN" key (remote controller) and "CH (∧)/(∨)" key (remote controller and set).
- To change the settings, use the "cursor RIGHT/LEFT" key (remote controller) and "VOL (+)/(–)" key (remote controller and set).
- To save new settings, keep the cursor at "Enter" and use the "cursor RIGHT/LEFT" key (remote controller) and "VOL (+)/(–)" key (remote controller and set).

Public mode	
Power on fixed	[Variable]
Maximum volume	[60]
Volume fixed	[Variable]
Volume fixed level	[20]
RC button	[Respond]
Panel button	[Respond]
Menu button	[Respond]
On screen display	[Yes]
Input mode start	[Normal]
Input mode fixed	[Variable]
Reset	
Enter	

5. On Setting Items

* "EZ-SETUP" discussed below indicates "EZ-SETUP after the first power-on".

(1) POWER ON FIXED

Selection	Selection between "Variable" and "Fixed" (loop provided)
Default	– (Variable)
Explanation	In "Fixed" setting, the power-off by the power key of the unit is invalidated and the image is kept being received. The power can be turned off by stopping the power supply from AC.
Limit in Setting	Refer to the "Power-On Fixed" sheet.
Exception	None
Remarks	• Selection of "FIXED" depends on use of STB etc. • In "Variable" setting, the power operation is in wait for 1 sec. and then turned off when the main power switch is off. • Display ON/OFF in hotel menu is controlled by adjustment process "HOTEL POWERFIX".

(2) MAXIMUM VOLUME

Selection	Adjustment from 0 to 60 (no loop)
Default	60
Explanation	Sound volume can not be adjusted higher than the preset value.
Limit in Setting	• When the sound volume is set lower than 59, only figures are displayed and the sound volume bar is not displayed. • The maximum sound volume for ON-timer (Wake up timer) is limited also to the preset value.
Exception	• In the item "VOLUME" of adjustment process, the sound volume can be set freely irrespective of this setting.
Remarks	• In line output (sound volume variable), the sound volume can be adjusted from -60 to 0 irrespective of pre-adjusted value. • When the sound volume is set higher than the MAX setting by the adjusting process, the sound volume control operation is prohibited for turn-up and the sound volume should be turned down to MAX in this state.

(3) VOLUME FIXED

Selection	Selection between "Variable" and "Fixed" (loop provided)
Default	Variable
Explanation	Sound volume is fixed and made invariable.

Limit in Setting	• The sound volume for the ON-timer (Wake up timer) is fixed also without display of menu. Besides, the setting is made impossible. (Basically, the menu is not displayed.)
	• The following keys become invalid:
	  • Sound volume Up/Down (VOL +/-) [for both remote control and the unit]
	  • Mute (MUTE)

Exception	• In the item "VOLUME" of adjustment process, the sound volume can be set freely irrespective of this setting.
Remarks	• In line output (sound volume variable), the sound volume can be adjusted from -60 to 0 irrespective of pre-adjusted value. • As for sound volume fixing and sound volume MAX level, the sound volume fixing has priority. • Once the sound volume has been changed by adjustment process, it should be set back to the sound volume preset by sound volume fixing level when the adjustment process ends .

(4) VOLUME FIXED LEVEL

Selection	Adjustment from 1 to 60 (no loop)
Default	10
Explanation	The sound volume to be fixed by "Volume fixed" is determined.
Limit in Setting	None
Exception	None
Remarks	Setting is valid only when "Volume fixed" is selected for "fixed".

(5) R/C BUTTON

Selection	Selection between "Respond" , "Limited" and "No respond" (loop provide)
Default	Respond
Explanation	Keys acceptable by remote control are limited or reception of keys can be prohibited.
Limit in Setting	①In "limited" setting, only power ON/OFF, sound volume ▲▼, tuning ▲▼ and BACKLIGHT (brightness sensor) are accepted. ②In "No respond" setting, all the keys (including the power key) are not accepted.
Exception	• Adjustment process, factory setting, inspection process and hotel only keys are valid irrespective of setting. • All the keys can be used in adjustment process, inspection mode and hotel menu irrespective of setting. • All the keys can be used also in the initial EZ-Setup after power-ON irrespective of setting.
Remarks	

(6) PANEL BUTTON

Selection	Selection between "Respond" and "No respond" (loop provide)
Default	Respond
Explanation	All the operations by keys (except the power key) of the unit can be invalidated.
Limit in Setting	
Exception	• Inspection mode and hotel menu mode can be started irrespective of setting. • All the keys can be used in adjustment process, inspection mode and hotel menu irrespective of setting. • In U.S.A model, all the keys can be used also in the initial EZ-Setup after power-ON irrespective of setting.
Remarks	

(7) MENU BUTTON

Selection	Selection between "Respond" and "No respond" (loop provide)
Default	Respond
Explanation	In "No respond" setting, the menu operation by the menu key of the remote control and the menu key of the unit are invalidated.
Limit in Setting	• ON-timer (Wakeup Timer) is turned OFF. • The following keys become invalid. Wake-up timer and clock setting keys and all of the direct change keys to menu display
Exception	• Inspection mode and hotel menu mode can be started irrespective of setting. • All the keys can be used in adjustment process, inspection mode and hotel menu irrespective of setting. • All the keys can be used also in the initial EZ-Setup after power-ON irrespective of setting.
Remarks	

(8) ON SCREEN DISPLAY

Selection	Selection between "Yes" , "Limited" (loop provide)
Default	Yes
Explanation	The following OSD displays are made ineffective. Displays of menu group, channel call, sound volume bar and direct key call
Limit in Setting	• ON-timer (Wake-up timer) is cleared and set to "OFF". • Set time of the OFF-timer (SLEEP TIMER) is cleared. • Setting of the no-signal power-OFF (AUTO POWER OFF) is cleared to "OFF". • Setting of the no-operation power-OFF is cleared to "OFF". • Keys falling under any of the following items become invalid. ①Appearance of screen changes and the sound changes. ②Personal functions which are hard to restore. Screen display, menu, OFF-timer, ON-timer, AV MODE, screen size switching, clock setting, treble emphasis, AUDIO ONLY, sound changeover, LANGUAGE, CLOSED CAPTION
Others	• Simple input switching is generated. Those which are restored soon after leaving as they are and may be requested for change by customer are not prohibited. Brightness sensor (BACKLIGHT) and PIC. FLIP
Exception	• Such a caution which is displayed independently is displayed as it is. Non-responding signal caution, V-Chip caution and power-ON fixing caution
Remarks	• When CC has already been ON, CLOSED CAPTION is displayed.

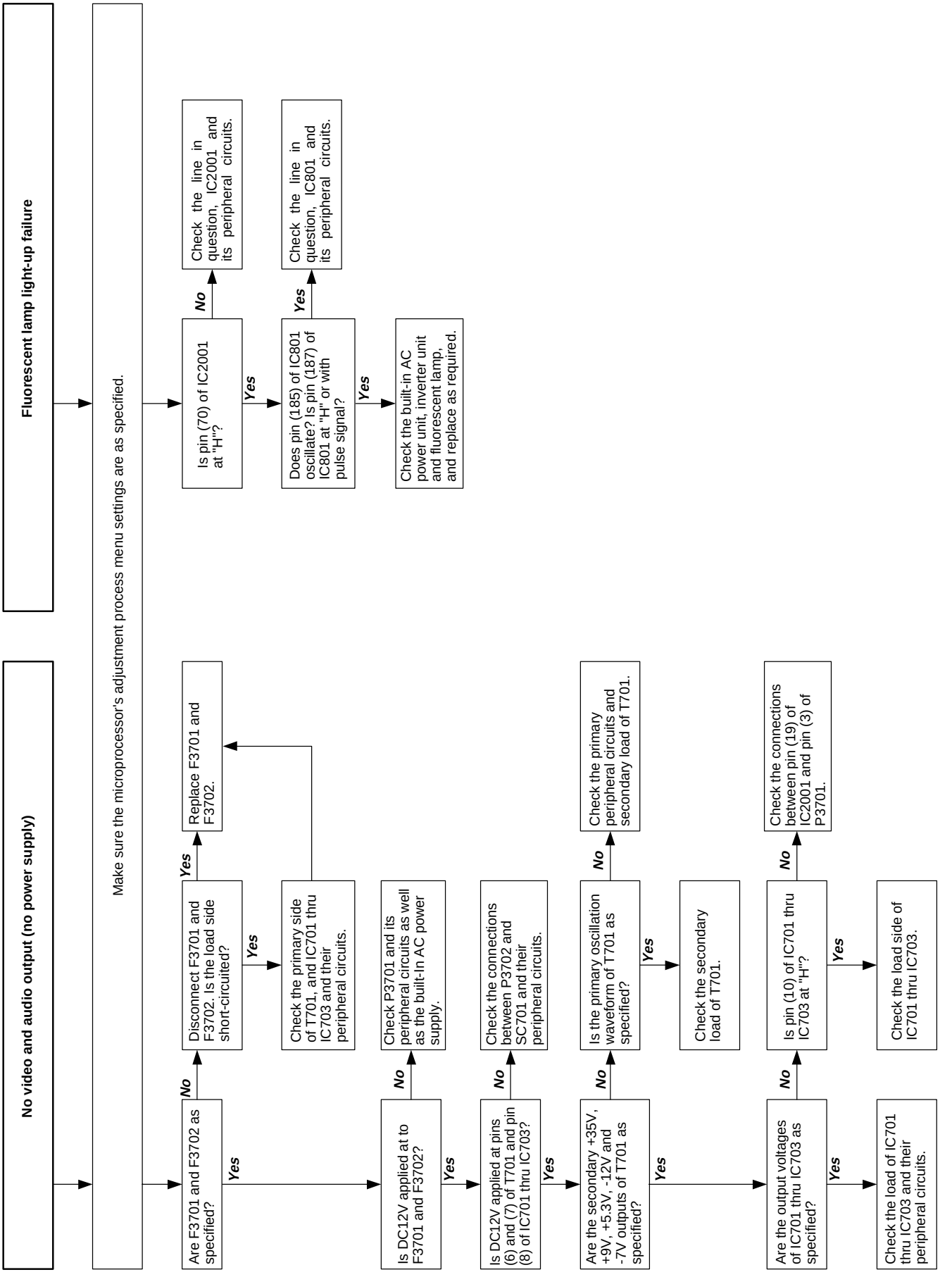
(9) INPUT MODE START

Selection	Selection between "Normal" , "TV (CH∗)" "INPUT 1/2/3" (loop provide)
Default	Normal
Explanation	In power-ON, the input source to be started or channel can be set. (In standard mode, the operation follows the last memory.)
About options	• All the input sources in the model are made selectable. • When the input/output switchable input source is selected and the input source is set to output, the setting of input/output switching is changed to input at the execution of hotel menu. In addition, the input/output switching by menu is prohibited. • In TV mode, the channel to be set follows the last memory and the content of the last memory is included in the notation by options. Ex.) TV (CH2), TV (CH4) etc.
Limit in Setting	• The display of channel setting menu and the channel setting operation are prohibited.
Exception	• In the start by "ON-timer (Wake-up timer)", the channel set by ON-timer (Wake-up timer) has priority.
Remarks	• In setting at "Normal", the setting of "Input mode fixed" is changed to "Variable" and selection should be prohibited.

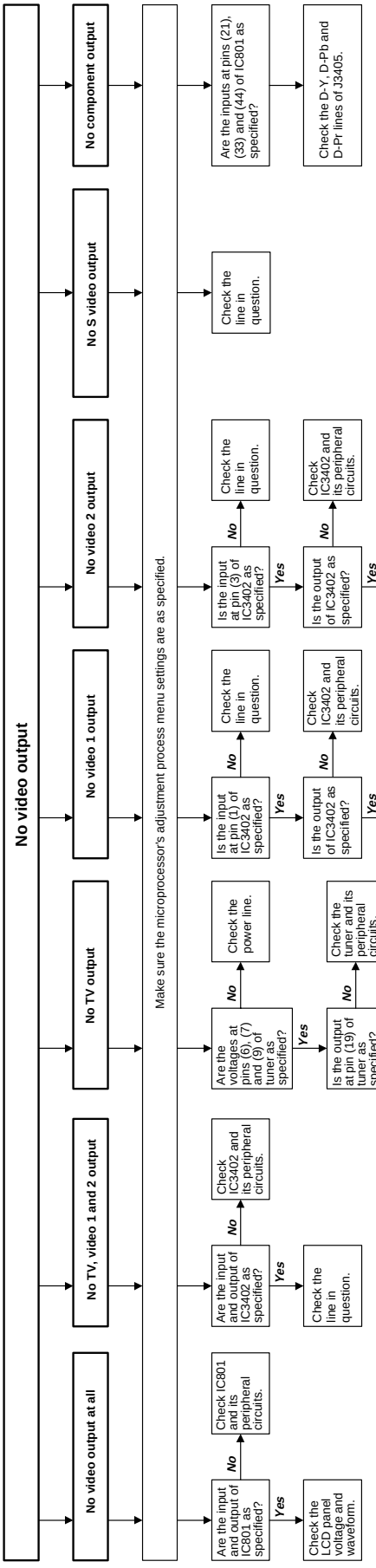
(10) INPUT MODE FIXED

Selection	Selection between "Variable" and "Fixed" (loop provide)
Default	– (Variable)
Explanation	The input mode is fixed at the input source or the channel set at the "Input mode start" in 9 and other input sources and channels can be made non-selectable.
Limit in Setting	• With the execution of hotel mode, the input source is forced to change to that set by "Input mode start" and the channel switching and input switching are prohibited thereafter. • ON-timer's (Wake-up timer) channel items are not displayed or the operation is prohibited. (Basically, they are not displayed.) • The following keys are invalidated. CH ▲▼, direct tuning button, FLASHBACK, input ∗However, the keys (input switching and CH ▲▼ keys) of the unit for menu operation remain valid.
Exception	None
Remarks	• In the following case, setting is cancelled and mode is changed to "Variable". ①When the setting of "Input mode start" is set to "Standard (Normal)"

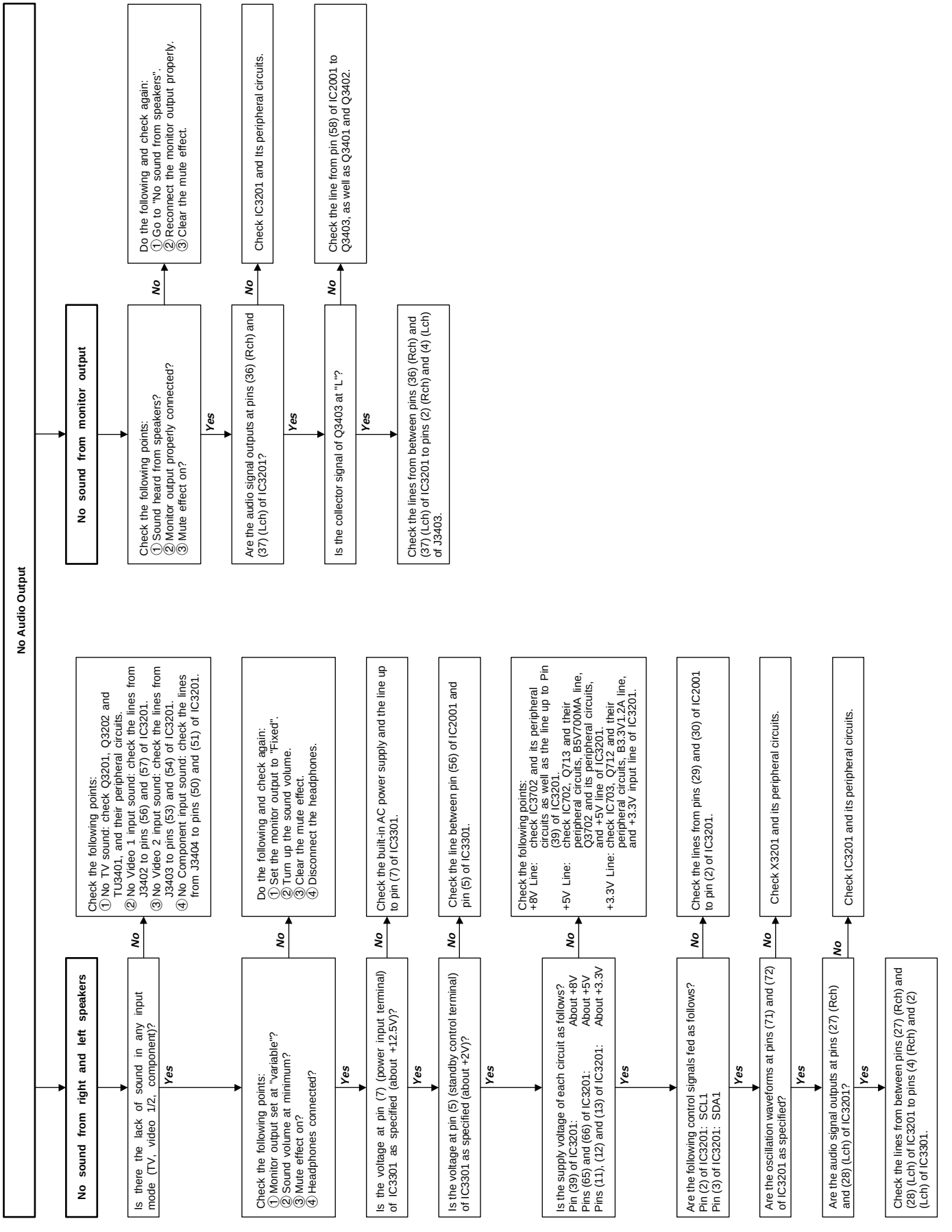
TROUBLE SHOOTING TABLE


No video and audio output (no power supply)
Fluorescent lamp light-up failure
Make sure the microprocessor's adjustment process menu settings are as specified.
Are F3701 and F3702 as specified?
No
Disconnect F3701 and F3702. Is the load side short-circuited?
Yes
Replace F3701 and F3702.
Yes
Check the primary side of T701, and IC701 thru IC703 and their peripheral circuits.
Is DC12V applied at to F3701 and F3702?
No
Check P3701 and its peripheral circuits as well as the built-In AC power supply.
Yes
Is DC12V applied at pins (6) and (7) of T701 and pin (8) of IC701 thru IC703?
No
Check the connections between P3702 and SC701 and their peripheral circuits.
Yes
Are the secondary +35V, +9V, +5.3V, -12V and -7V outputs of T701 as specified?
No
Is the primary oscillation waveform of T701 as specified?
No
Check the primary peripheral circuits and secondary load of T701.
Yes
Check the secondary load of T701.
Yes
Are the output voltages of IC701 thru IC703 as specified?
No
Is pin (10) of IC701 thru IC703 at "H"?
No
Check the connections between pin (19) of IC2001 and pin (3) of P3701.
Yes
Check the load side of IC701 thru IC703.
Yes
Check the load of IC701 thru IC703 and their peripheral circuits.
Is pin (70) of IC2001 at "H"?
No
Check the line in question, IC2001 and its peripheral circuits.
Yes
Does pin (185) of IC801 oscillate? Is pin (187) of IC801 at "H" or with pulse signal?
Yes
Check the line in question, IC801 and its peripheral circuits.
Yes
Check the built-in AC power unit, inverter unit and fluorescent lamp, and replace as required.

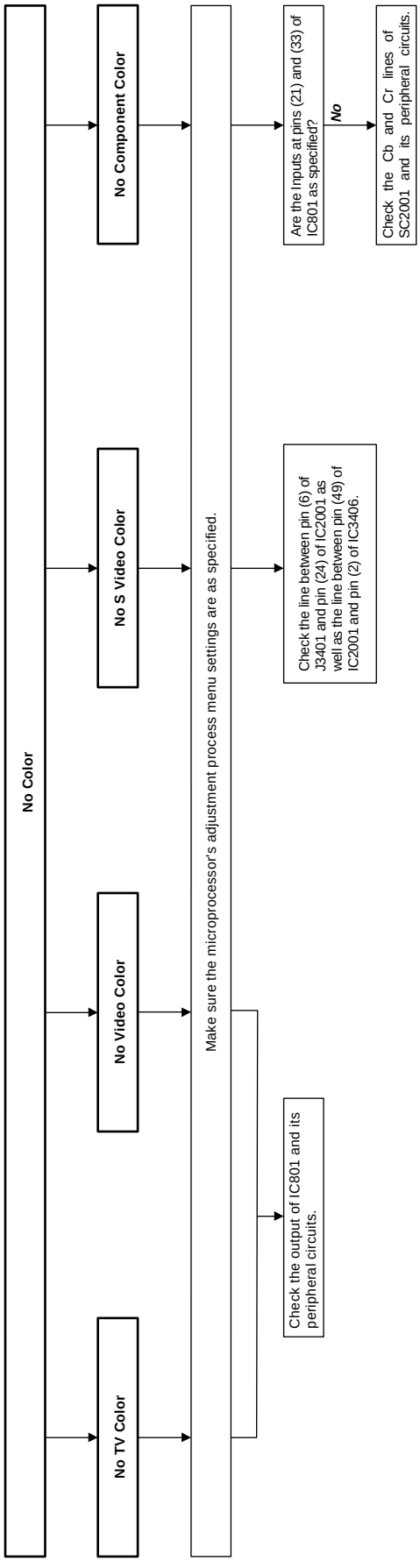
TROUBLE SHOOTING TABLE (Continued)


No video output
No video output at all
Are the input and output of IC801 as specified?
Yes
Check the LCD panel voltage and waveform.
No
Check IC801 and its peripheral circuits.
No TV, video 1 and 2 output
Are the input and output of IC3402 as specified?
Yes
Check the line in question.
No
Check IC3402 and its peripheral circuits.
No TV output
Are the voltages at pins (6), (7) and (9) of tuner as specified?
Yes
Is the output at pin (19) of tuner as specified?
Yes
Is the input at pin (5) of IC3402 as specified?
Yes
Is the output of IC3402 as specified?
Yes
Check the line in question.
No
Check the power line.
No
Check the tuner and its peripheral circuits.
No
Check the line in question.
No
Check IC3402 and its peripheral circuits.
No video 1 output
Is the input at pin (1) of IC3402 as specified?
Yes
Is the output of IC3402 as specified?
Yes
Check the line in question.
No
Check the line in question.
No
Check IC3402 and its peripheral circuits.
No video 2 output
Is the input at pin (3) of IC3402 as specified?
Yes
Is the output of IC3402 as specified?
Yes
Check the line in question.
No
Check the line in question.
No
Check IC3402 and its peripheral circuits.
No S video output
Check the line in question.
No component output
Are the inputs at pins (21), (33) and (44) of IC801 as specified?
Check the D-Y, D-Pb and D-Pr lines of J3405.
Make sure the microprocessor's adjustment process menu settings are as specified.

TROUBLE SHOOTING TABLE (Continued)


No Audio Output
No sound from right and left speakers
Is there the lack of sound in any input mode (TV, video 1/2, component)?
No
Check the following points:
① No TV sound: check Q3201, Q3202 and TU3401, and their peripheral circuits.
② No Video 1 input sound: check the lines from J3402 to pins (56) and (57) of IC3201.
③ No Video 2 input sound: check the lines from J3403 to pins (53) and (54) of IC3201.
④ No Component input sound: check the lines from J3404 to pins (50) and (51) of IC3201.
Yes
Check the following points:
① Monitor output set at "variable"?
② Sound volume at minimum?
③ Mute effect on?
④ Headphones connected?
No
Do the following and check again:
① Set the monitor output to "Fixed".
② Turn up the sound volume.
③ Clear the mute effect.
④ Disconnect the headphones.
Yes
Is the voltage at pin (7) (power input terminal) of IC3301 as specified (about +12.5V)?
No
Check the built-in AC power supply and the line up to pin (7) of IC3301.
Yes
Is the voltage at pin (5) (standby control terminal) of IC3301 as specified (about +2V)?
No
Check the line between pin (56) of IC2001 and pin (5) of IC3301.
Yes
Is the supply voltage of each circuit as follows?
Pin (39) of IC3201: About +8V
Pins (65) and (66) of IC3201: About +5V
Pins (11), (12) and (13) of IC3201: About +3.3V
No
Check the following points:
+8V Line: check IC3702 and its peripheral circuits as well as the line up to Pin (39) of IC3201.
+5V Line: check IC702, Q713 and their peripheral circuits, B5V700MA line, Q3702 and its peripheral circuits, and +5V line of IC3201.
+3.3V Line: check IC703, Q712 and their peripheral circuits, B3.3V1.2A line, and +3.3V input line of IC3201.
Yes
Are the following control signals fed as follows?
Pin (2) of IC3201: SCL1
Pin (3) of IC3201: SDA1
No
Check the lines from pins (29) and (30) of IC2001 to pin (2) of IC3201.
Yes
Are the oscillation waveforms at pins (71) and (72) of IC3201 as specified?
No
Check X3201 and its peripheral circuits.
Yes
Are the audio signal outputs at pins (27) (Rch) and (28) (Lch) of IC3201?
No
Check IC3201 and its peripheral circuits.
Yes
Check the lines from between pins (27) (Rch) and (28) (Lch) of IC3201 to pins (4) (Rch) and (2) (Lch) of IC3301.
No sound from monitor output
Check the following points:
① Sound heard from speakers?
② Monitor output properly connected?
③ Mute effect on?
No
Do the following and check again:
① Go to "No sound from speakers".
② Reconnect the monitor output properly.
③ Clear the mute effect.
Yes
Are the audio signal outputs at pins (36) (Rch) and (37) (Lch) of IC3201?
No
Check IC3201 and its peripheral circuits.
Yes
Is the collector signal of Q3403 at "L"?
No
Check the line from pin (58) of IC2001 to Q3403, as well as Q3401 and Q3402.
Yes
Check the lines from between pins (36) (Rch) and (37) (Lch) of IC3201 to pins (2) (Rch) and (4) (Lch) of J3403.

TROUBLE SHOOTING TABLE (Continued)


No Color
No Component Color
No S Video Color
No Video Color
No TV Color
Make sure the microprocessor's adjustment process menu settings are as specified.
Are the Inputs at pins (21) and (33) of IC801 as specified?
No
Check the Cb and Cr lines of SC2001 and its peripheral circuits.
Check the line between pin (6) of J3401 and pin (24) of IC2001 as well as the line between pin (49) of IC2001 and pin (2) of IC3406.
Check the output of IC801 and its peripheral circuits.

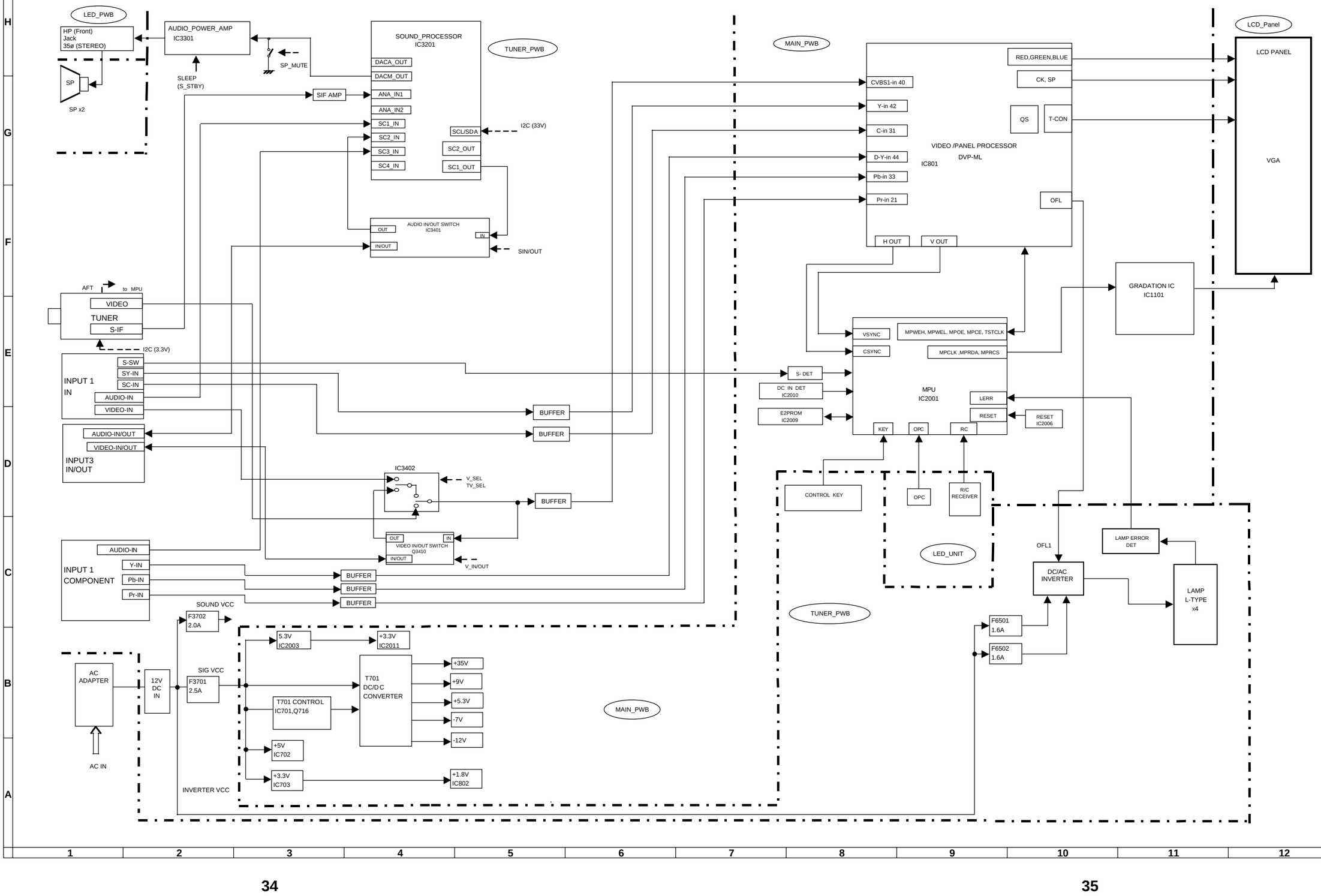
MAJOR IC INFORMATIONS

1-1. Description of Pins of IC2001 (RH-iXA631WJN1Q or RH-iXA631WJZZQ)

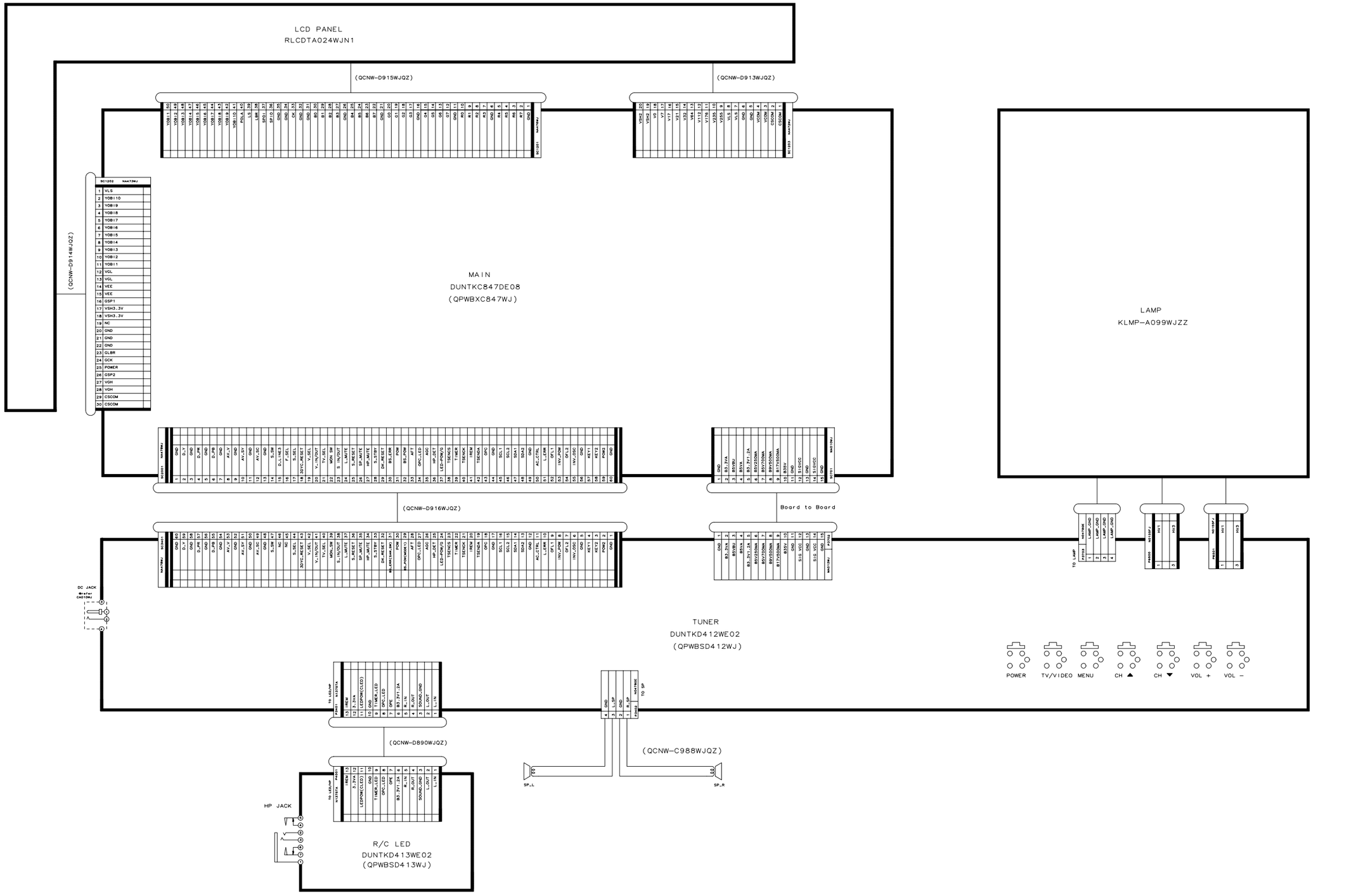
Pin No.	Pin Name	I/O	Pin Name	Function
1	P96	O		N.C
2	P95	O		N.C
3	P94	O		N.C
4	P93	O		N.C
5	P92	O		N.C
6	TB1in	I	CSYNC	Composite sync signal
7	TB0in	I	IREM1	Remote control signal
8	BYTE	I	BYTE	Connected to GND
9	CNVss	I	CNVss	Connected to GND (connected to Vcc1 for CNVSS at flash write)
10	Xc in	I	Xc in	32-kHz quartz oscillator (for clock count)
11	Xc out	O	Xc out	32-kHz quartz oscillator (for clock count)
12	RESET	I	RESET	Microprocessor reset at "L"
13	X out	O	X out	System clock output
14	Vss	I	Vss	GND
15	X in	I	X in	System clock input
16	Vcc1	I	Vcc1	VDD (+3.3V)
17	NMI	I	NMI	(Connected to Vcc1 for NMI at flash write)
18	P84	O		N.C
19	INT1	I	P SW in	Main power monitor
20	INT0	I	VSYNC	VSYNC signal input
21	P81	O		N.C
22	P82	O	AC_Ctrl	AC adaptor power consumption control
23	P77	O	DAC1CS	Gradation control IC chip select
24	P76	I	SSW	Connected to S terminal at "L"
25	P75	O		N.C
26	P74	O		N.C
27	P73	I/O	SDA2	Serial data line 2 for I2C bus 2 system
28	P72	I/O	SCL2	Serial clock line 2 for I2C bus 2 system (EEPROM)
29	P71	I/O	SCL1	Serial clock line 1 for I2C bus 2 system (others)
30	P70	I/O	SDA1	Serial data line 1 for I2C bus 2 system
31	P67	O	TxD	(TxD at flash write)
32	P66	O	RxD	(RxD at flash write)
33	P65	O	SCLK	(Clock input at flash write)
34	P64	O	BUSY	(Busy output at flash write)
35	TxD0	O	MPWEL	Data signal input for DVP 4-line serial (MPWEL)
36	RxD0	I	MPOE	Data output signal for DVP 4-line serial (MPOE)
37	CLK0	O	MPWEH	Clock for DVP 4-line serial (MPWEH)
38	P60	O		N.C
39	P57	O	MAIN SW	LED power control
40	P56	O		N.C
41	P55	I	POW in(EPM)	DC/DC start detect (connected to Vss for EPM at flash write)
42	P54	I(O)	L_ERR	Fluorescent lamp error detect
43	P53	O	S IN/OUT	Audio input/output select
44	P52	O	COMP	AV selector switch
45	P51	O	TIMER(RLED)	On timer LED control (power RLED control)
46	P50	I	MRDY(CE)	I^2C bus open connection detect (connected to Vcc2 for CE at flash write)
47	P47	O	LED POW(GLED)	Power GLED control
48	P46	O		N.C
49	P45	O	S_SEL	AV selector switch
50	P44	O	VSH OUT	Panel gate driver voltage control

Pin No.	Pin Name	I/O	Pin Name	Function
51	P43	O		N.C
52	P42	O	HP_MUTE	Headphones mute
53	P41	O	SP_MUTE1	Main speaker mute
54	P40	O		N.C
55	P37	I	HP DET	Headphones detect
56	P36	O	SSTBY	Amplifier power control
57	P35	I	VSH_IN	Panel gate driver voltage confirm
58	P34	O	L MUTE	Line out audio mute
59	P33	O	V_IN/OUT	Video input/output select
60	P32	O	SRESET	Audio IC reset output
61	P31	O		N.C
62	Xcc2	I	Vcc2	Power input
63	P30	O	TCON_OUT_OTL	DVP control output control
64	Vss	I	Vss	GND
65	P27	O	V_SEL	AV selector switch
66	P26	O	TV_SEL	AV selector switch
67	P25	O	BUS_SELECT_H(I^2C)	DVP I2C/4-line communication system select (H: I2C control, L: Serial control)
68	P24	O	MPCE	DVP 4-line serial chip enable (MPCE)/DVP slave address select
69	P23	O	OPC_LED	OPC LED light-up
70	P22	O	INV_POW	Separately-excited inverter power control
71	P21	O	VGH	Panel power control
72	P20	O	POW out	DC/DC control output
73	P17	I	ADP POW	Adaptor ON/OFF input
74	P16	O	DAC_OUTCON	Gradation control IC output control
75	P15	O		N.C
76	P14	O		N.C
77	P13	O		N.C
78	P12	O	MP_DA	Gradation control IC data output
79	P11	O	MP_CLK	Temperature sensor or gradation control IC clock output
80	P10	O	DDC_RESET	Video IC reset output (Renesas DVP, 3D YC)
81	P07	I	KEY4	Key input 4
82	P06	I	KEY5	Key input 5
83	P05	O		N.C
84	P04	O		N.C
85	P03	I	MODEL	Model ID port
86	P02	I	SHORT_DET	Over-current protection detect
87	P01	I	INCH2	Screen size ID port 2
88	P00	I	INCH1	Screen size ID port 1
89	AN7	I	AFT	AFT voltage input
90	P106	O		N.C
91	AN5	I	KEY1	Key input 1
92	AN4	I	KEY2	Key input 2
93	P103	O		N.C
94	AN2	I	OPC_IN	OPC sensor level input
95	P101	O		N.C
96	AVss	I	AVss	Connected to GND
97	P100	O		N.C
98	VREF	I	VREF	Connected to +3.3V
99	AVcc	I	AVcc	Connected to +3.3V
100	P97	O		N.C

BLOCK DIAGRAM



OVERALL WIRING DIAGRAM



DESCRIPTION OF SCHEMATIC DIAGRAM

VOLTAGE MEASUREMENT CONDITION:

1. The voltages at test points are measured on exclusive AC adaptor and the stable supply voltage of AC 110-240V. Signals are fed by a color bar signal generator for servicing purpose and the above voltages are measured with a 20k ohm/V tester.

INDICATION OF RESISTOR & CAPACITOR:

RESISTOR

1. The unit of resistance "Ω" is omitted. (K=kΩ=1000 Ω, M=MΩ).
2. All resistors are ± 5%, unless otherwise noted. (K= ± 10%, F= ± 1%, D= ± 0.5%)
3. All resistors are 1/16W, unless otherwise noted.

CAPACITOR

1. All capacitors are μF, unless otherwise noted. (P=pF=μμF).
2. All capacitors are 50V, unless otherwise noted.

CAUTION:
This circuit diagram is original one, therefore there may be a slight difference from yours.

SAFETY NOTES:

1.DISCONNECT THE AC PLUG FROM THE AC OUTLET BEFORE REPLACING PARTS.
2.SEMICONDUCTOR HEAT SINKS SHOULD BE REGARDED AS POTENTIAL SHOCK HAZARDS WHEN THE CHASSIS IS OPERATING.

IMPORTANT SAFETY NOTICE:

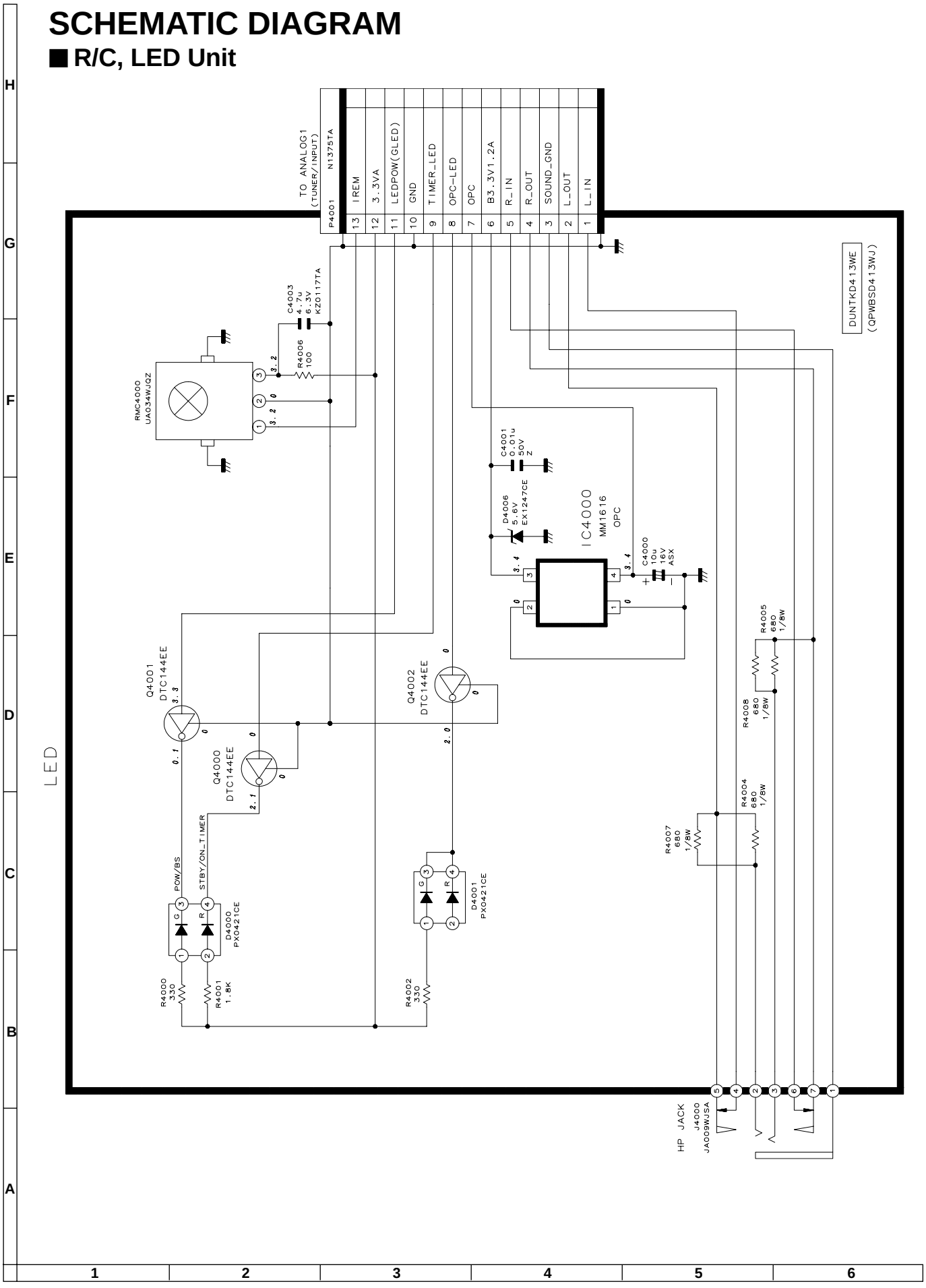
PARTS MARKED WITH "⚠" ( ) ARE IMPORTANT FOR MAINTAINING THE SAFETY OF THE SET. BE SURE TO REPLACE THESE PARTS WITH SPECIFIED ONES FOR MAINTAINING THE SAFETY AND PERFORMANCE OF THE SET.

AVIS DE SECURITE IMPORTANT:

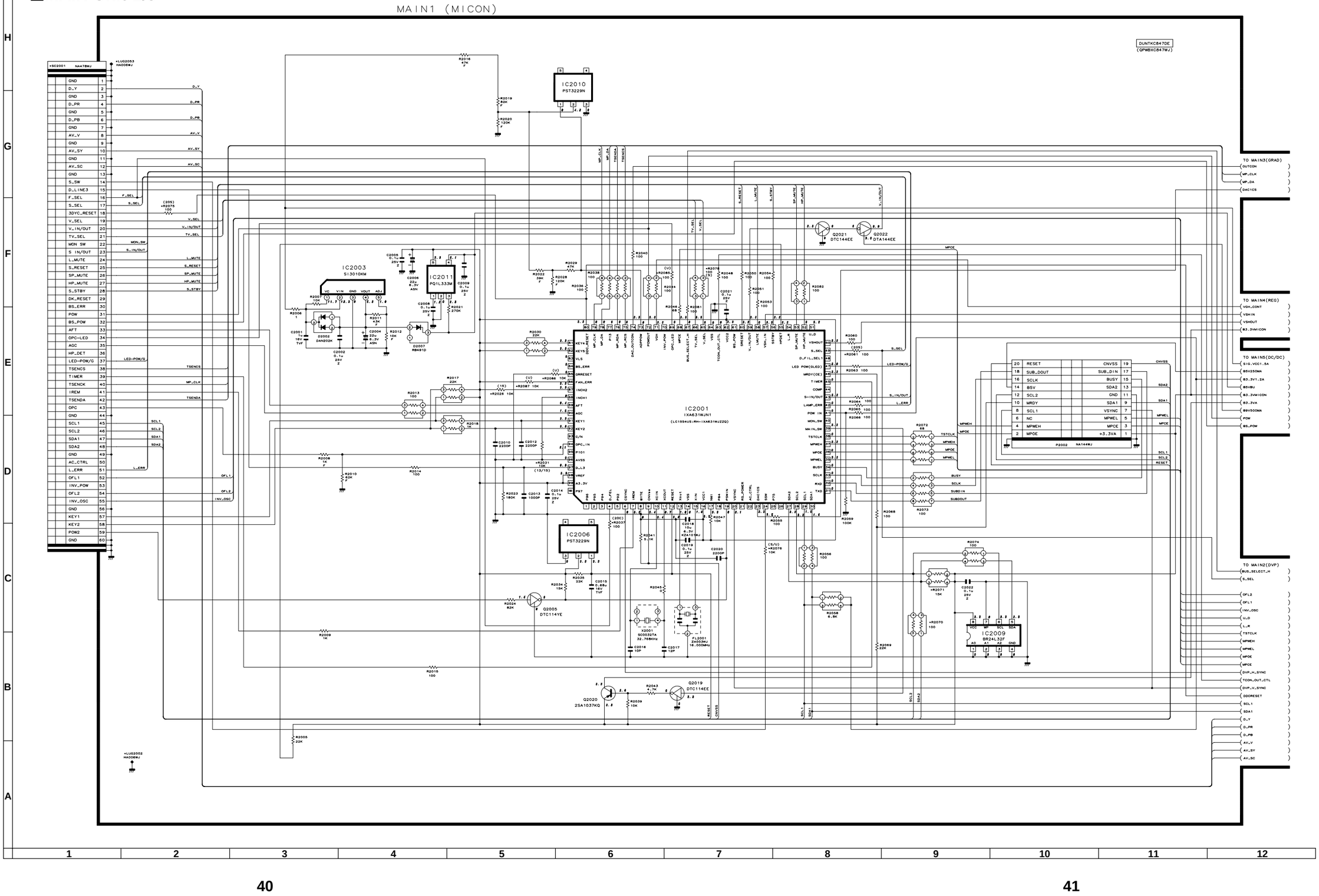
LES PIECES MARQUEES "⚠" ( )SONT IMPORTANTES POUR MAINTENIR LA SECURITE DE L'APPAREIL.
NE REMPLACER CES PIEDES QUE PAR DES PIECES DONT LE NUMERO EST SPECIFIE POUR MAINTENIR LA SECURITE ET PROTEGER LE BON FONCTIONNEMENT DE L'APPAREIL.

SCHEMATIC DIAGRAM

■ R/C, LED Unit



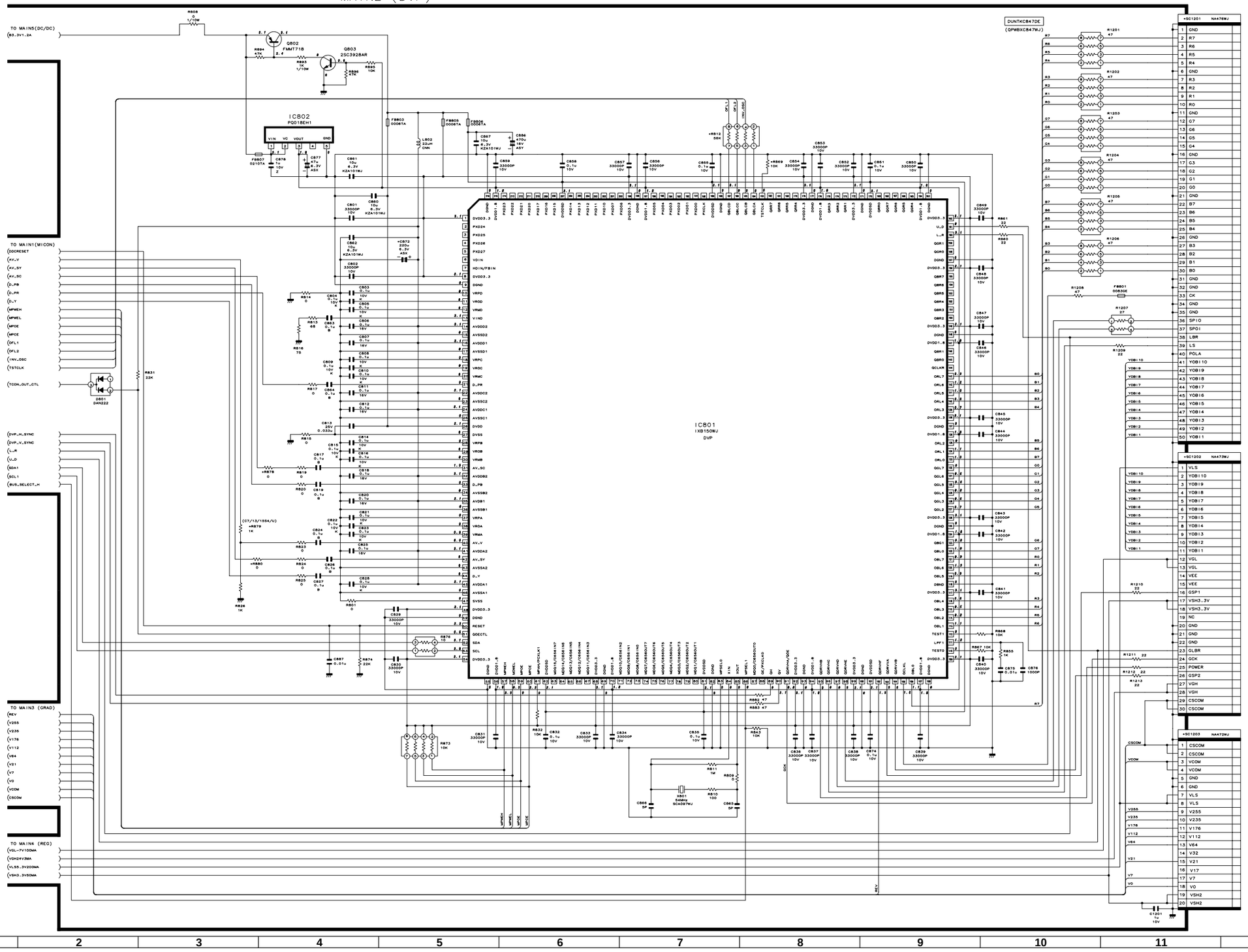
■MAIN Unit-1/5



1	2	3	4	5	6	7	8	9	10	11	12

■MAIN Unit-2/5

MAIN2 (DVP)



■MAIN Unit-3/5

MAIN3 (LINE GRAD)

TO MAIN5(DC/DC)
SIG.VCC1.5A
B5.3V200MA
B-7V1A
B9V500MA

D1101
DAN202K

*R1102
0

R1120
0

C1108
10u
10V
KZA108WJ

C1109
0.1u
25V
Z

C1102
47u
6.3V
AAPD

TO MAIN1(MICON)
OUTCON
MP_DA
MP_CLK
DAC1CS

C1103
10u
6.3V
KZA101WJ

R1101
10K

IC1101
BD8120FP

0	1	OUT1B	OUT0	28	0.9
0	2	OUT1A	OUT1	27	0
0	3	OUT0B	OUT2	26	2.8 → V0
2.5	4	OUT0A	OUT3	25	2.8 → V7
5.3	5	VCC	OUT4	24	2.8 → V21
3.3	6	OUTCON	OUT5	23	2.8 → V64
1.5	7	A/B	VEE	22	-7.2
-7.2					-7.2
0	8	SDWN	OUT6	21	2.8 → V112
0	9	GND	OUT7	20	2.7 → V176
3.1	10	LATCH	OUT8	19	2.7 → V235
0	11	CLK	OUT9	18	2.0 → V255
0	12	DATA	VDD	17	8.2
5.3	13	INVC2	INVC1	16	1.9
1.0	14	COM2	COM1	15	1.3

C1105
0.1u
25V
Z

C1106
10u
10V
KZA108WJ

C1107
56P

C1101
10u
10V
KZA108WJ

R1104
4.7K
F

R1105
4.7K
F

DUNTKC847DE
(QPWBXC847WJ)

TO MAIN2(DVP)
V255
V235
V176
V112
V64
V21
V7
V0
REV
VCOM
CSCOM

D1105
1SS250

Q1101
FMMT718

R1106
4.7K

R1107
1K
1/4W

R1108
5.6
1/2W
TWF

Q1102
DTC144EE

TO MAIN4(REG)
Q1708_B24V3MA
COM

C1113
1u
16V
TVB

R1115
0

R1117
0
1/2W
TWF

Q1103
2SC5566

R1109
180

R1110
1K

Q1104
2SA2013

R1111
180

R1112
5.6
1/2W
TWF

C1112
1u
16V
TVB

R1119
0

R1113
100
1/2W
TWF

C1114
0.1u
25V
TVB
K

R1114
10K

■MAIN Unit-4/5

MAIN4 (REG)

DUNTKC847DE
(QPWBXC847WJ)

TO MAIN1(MICON)
VSHIN
VGH_CONT
VSHOUT
B3.3VMICON

TO MAIN3(LINE GRAD)
Q1708_B24V3MA
COM

TO MAIN2(DVP)
VGH24V3MA
VSH3.3V50MA
VGL-7V100MA
VLS5.3V200MA

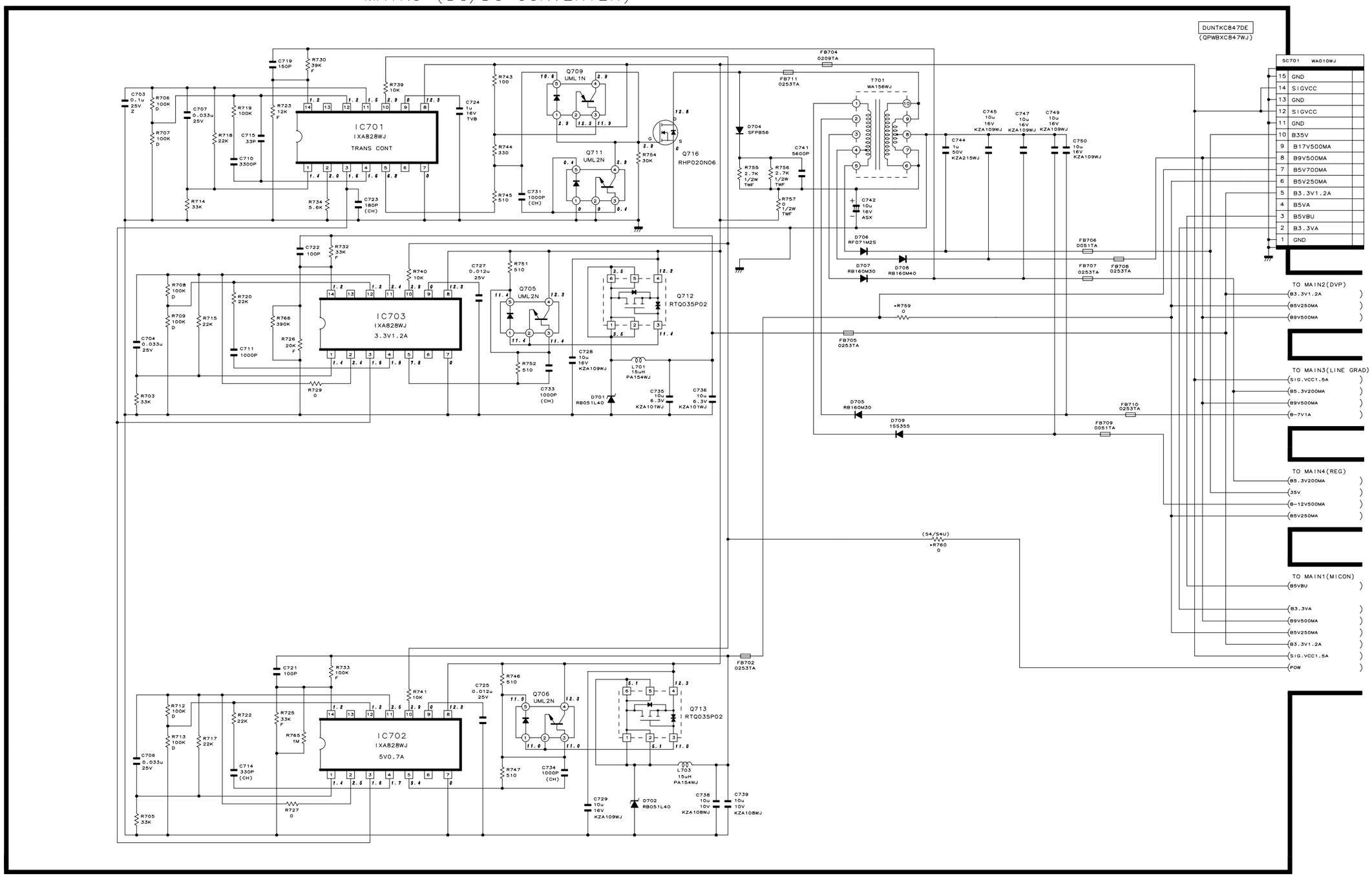
TO MAIN5(DC/DC)
B5.3V200MA
35V
B-12V500MA
B5V250MA

R1725 1K
L1701 47uH CNN
C1710 4.7u 50V ASX
C1711 0.1u Z
R1722 4.7K 1/2W TWF
R1720 2.7K
Q1708 2SA1037KQ
R1719 12K 1/4W
*R1718 0
Q1707 DTC144EE
Q1706 2SA1037KQ
R1717 4.7K
R1716 1K 1/2W TWF
Q1705 DTC144EE
D1701 DAN222
C1712 10u 50V ASX
R1726 100K
D1704 RB521S30
R1715 5.6K 1/10W
C1713 220u 6.3V ASY
C1714 10u 6.3V KZA101WJ
L1703 100uH PA143WJ
D1703 1SS250
R1723 33 1/2W TWF
C1708 0.1u 50V TVF
R1724 560 1/4W
IC1701 NJM2147M
Q1703 2SA1036K
Q1704 2SC3928AR
C1703 10u 10V KZA108WJ
R1704 100
D1702 DAN222
R1706 10K
R1707 1K
R1714 10K
C1706 0.1u 25V Z
C1702 0.1u 25V Z
R1701 36K F
R1705 56K F
R1709 68K F
C1705 2.2u 6.3V KZ0071TA
R1713 18K F
D1705 DAN222
C1707 0.1u 25V Z

1	2	3	4	5	6	7	8	9	10	11	12

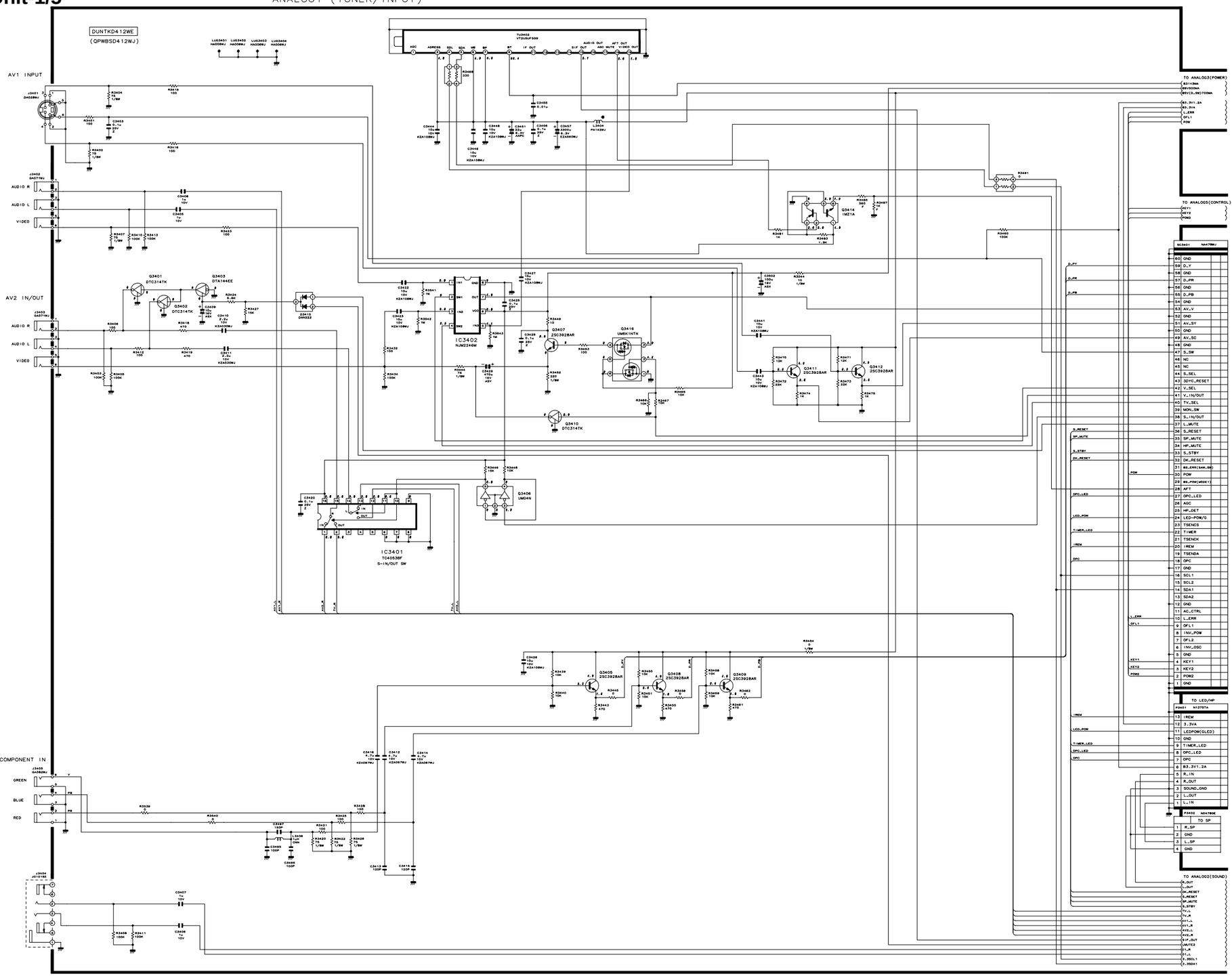
■MAIN Unit-5/5

MAIN5 (DC/DC CONVERTER)

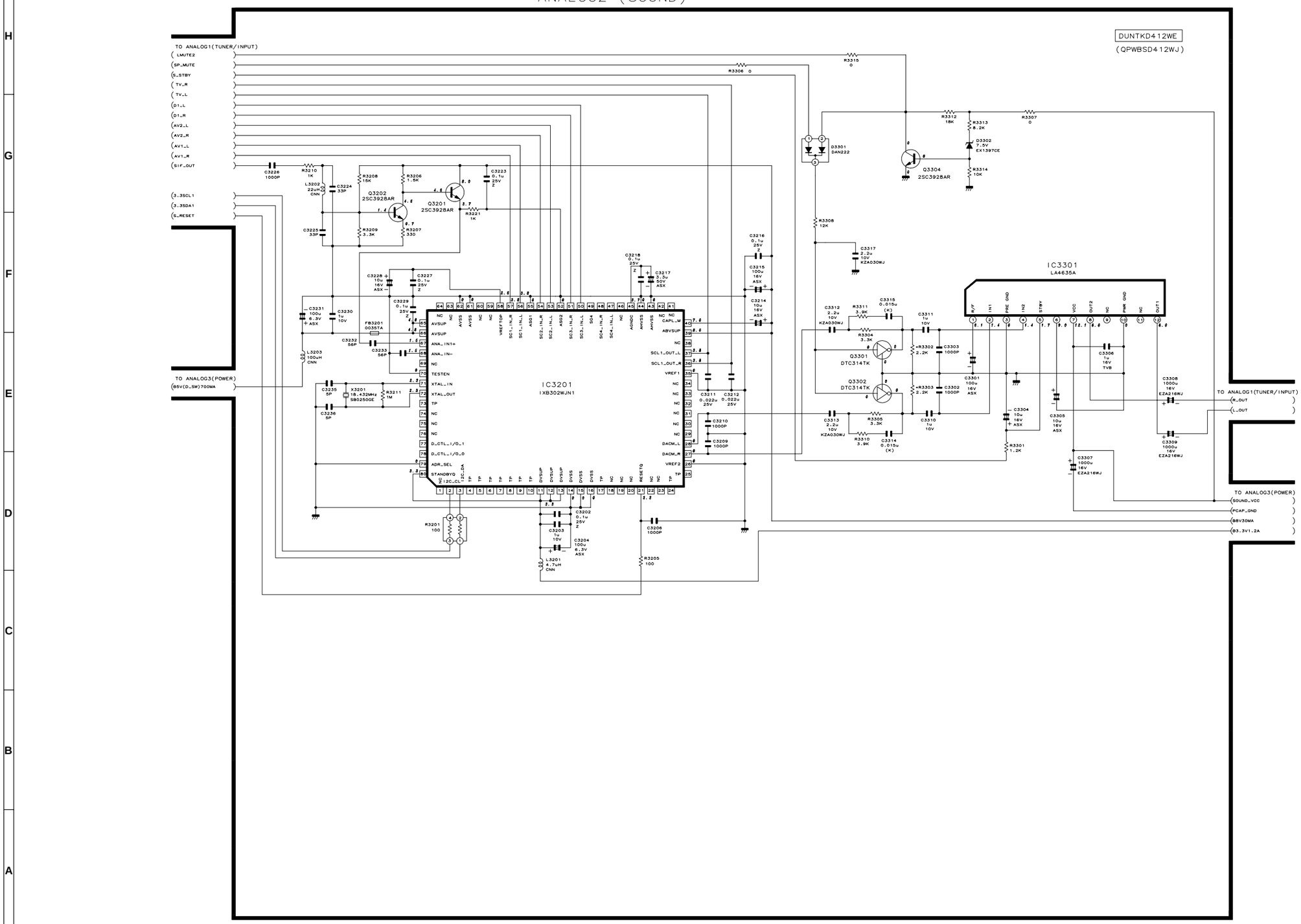


■ANALOG Unit-1/5

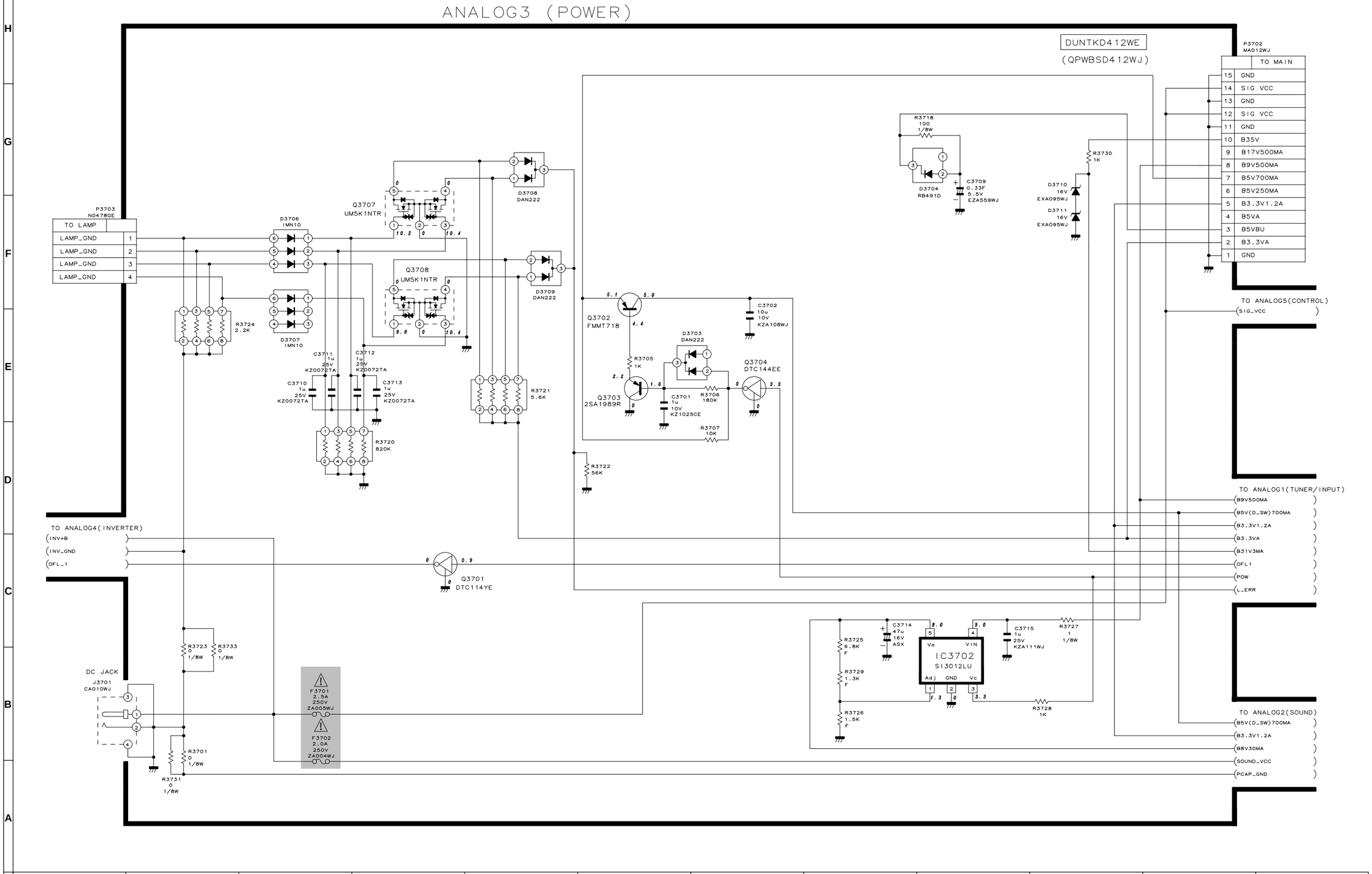
ANALOG1 (TUNER/INPUT)



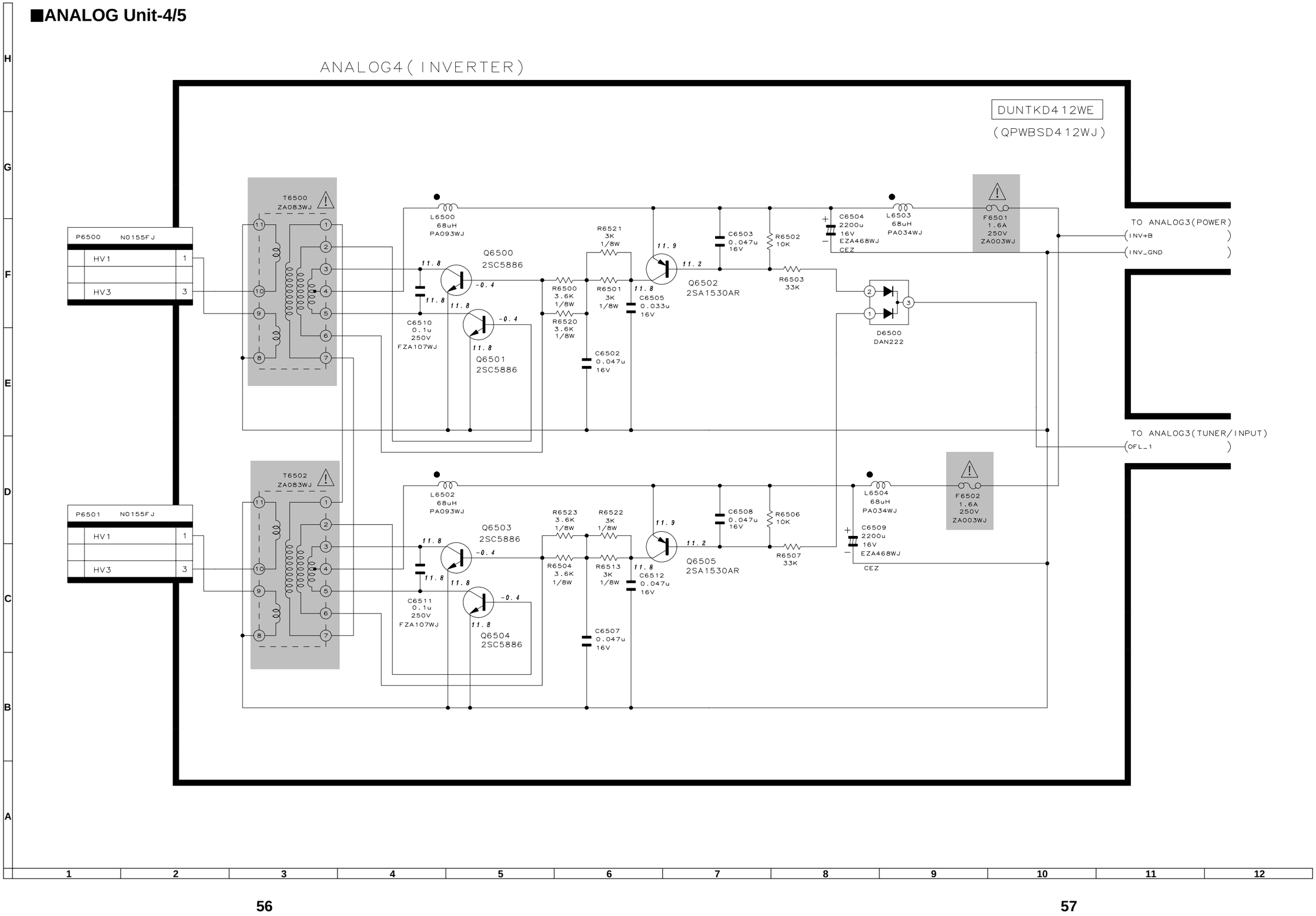
■ANALOG Unit-2/5



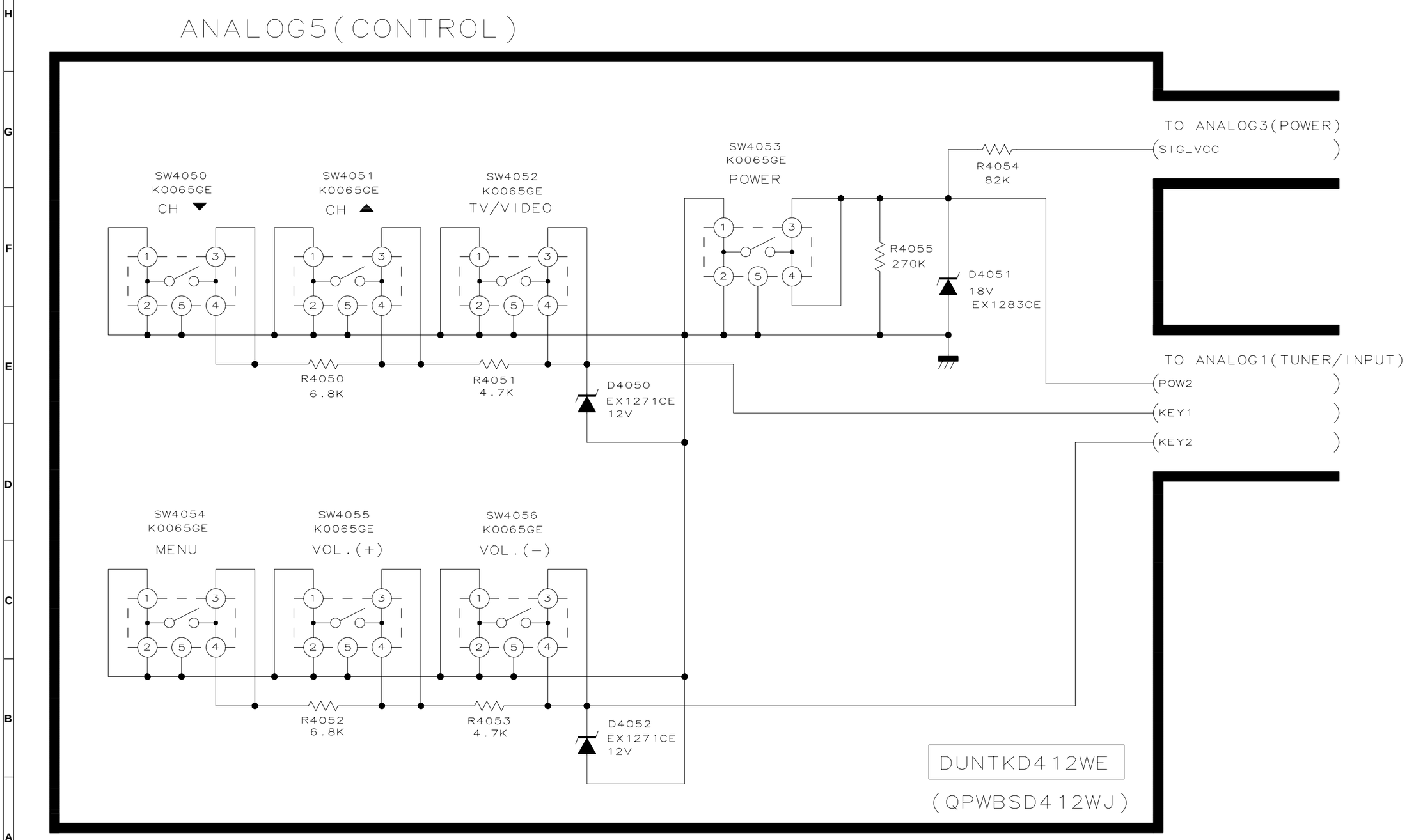
■ANALOG Unit-3/5



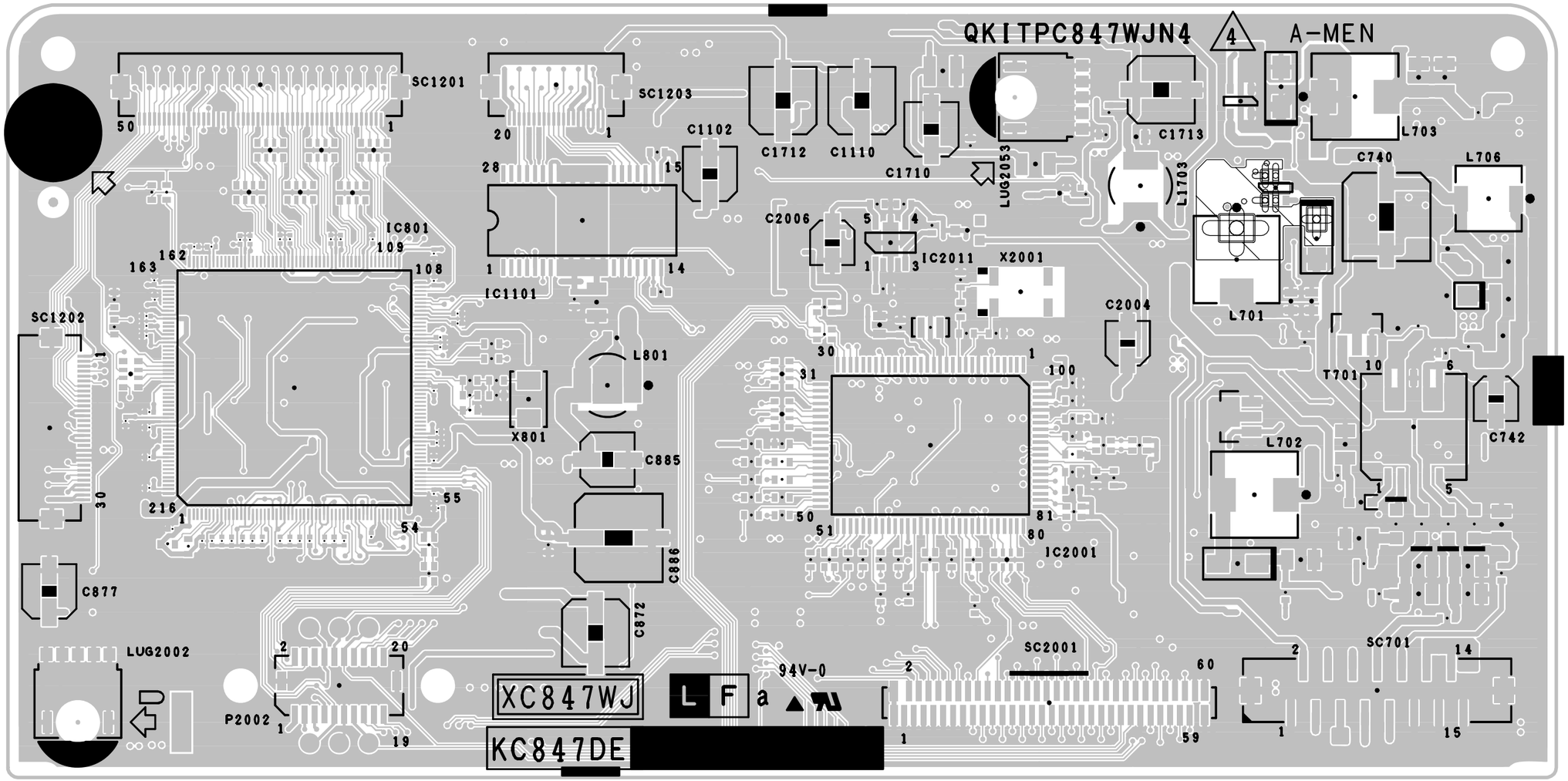
■ANALOG Unit-4/5



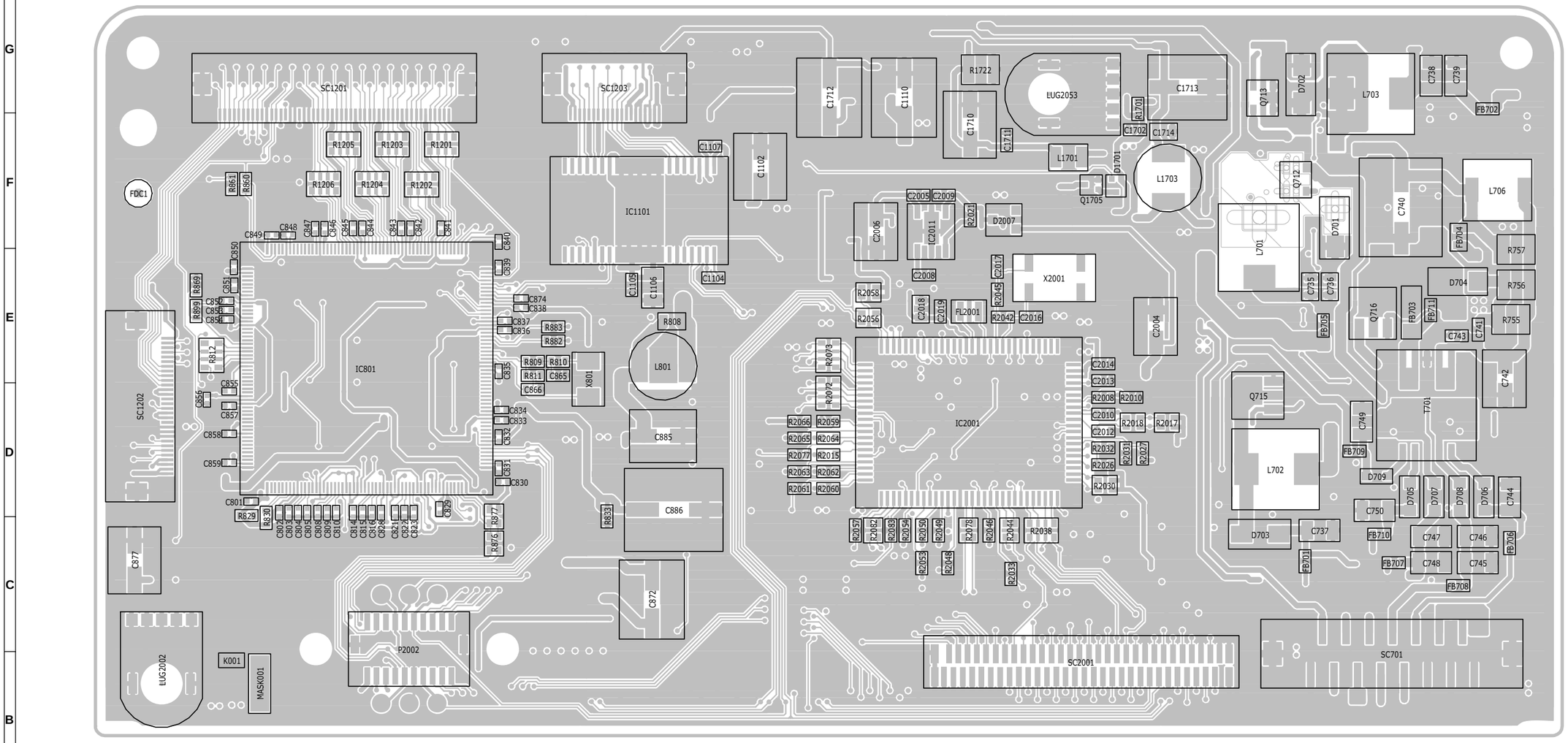
■ANALOG Unit-5/5



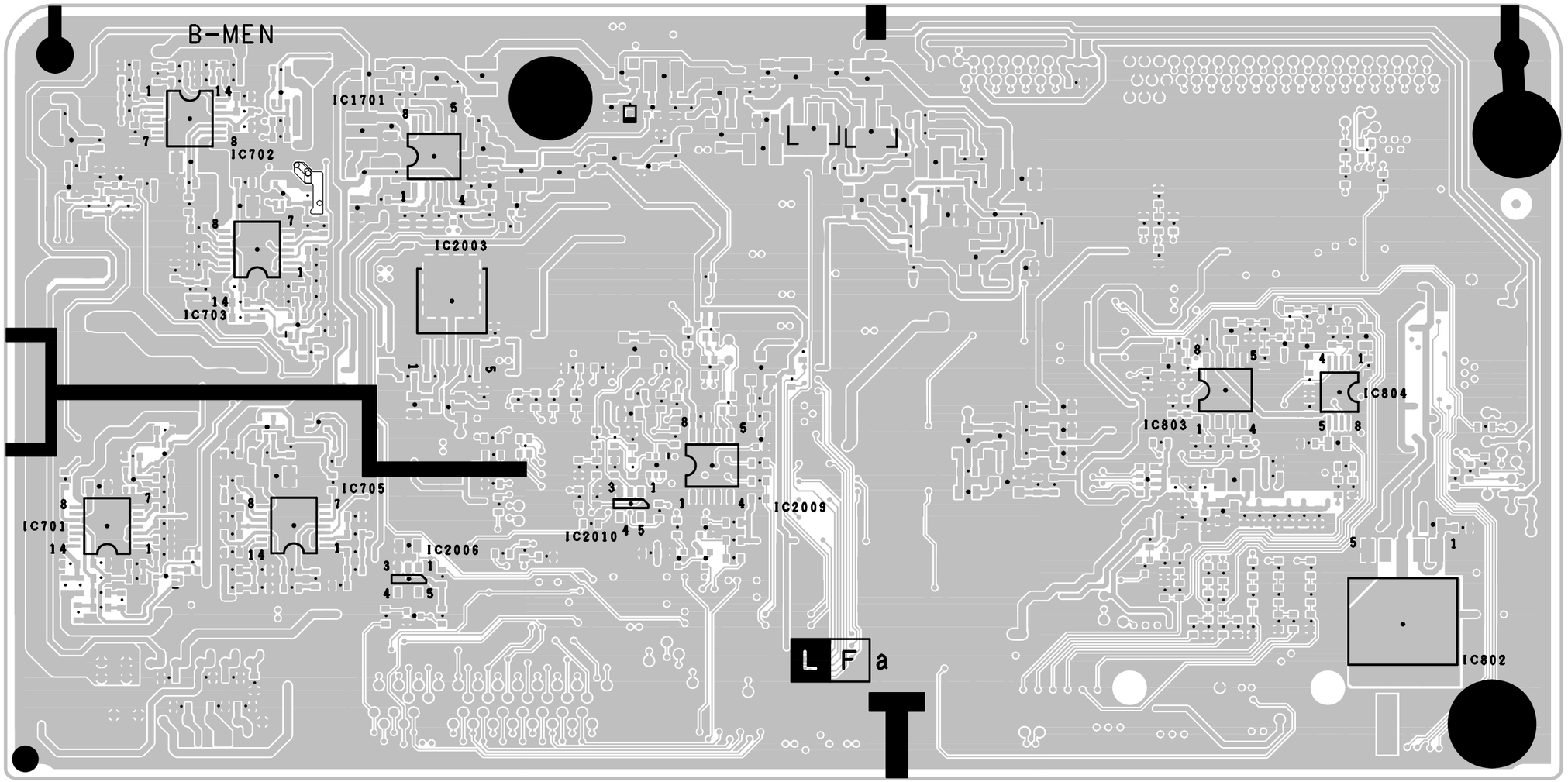
PRINTED WIRING BOARD ASSEMBLIES



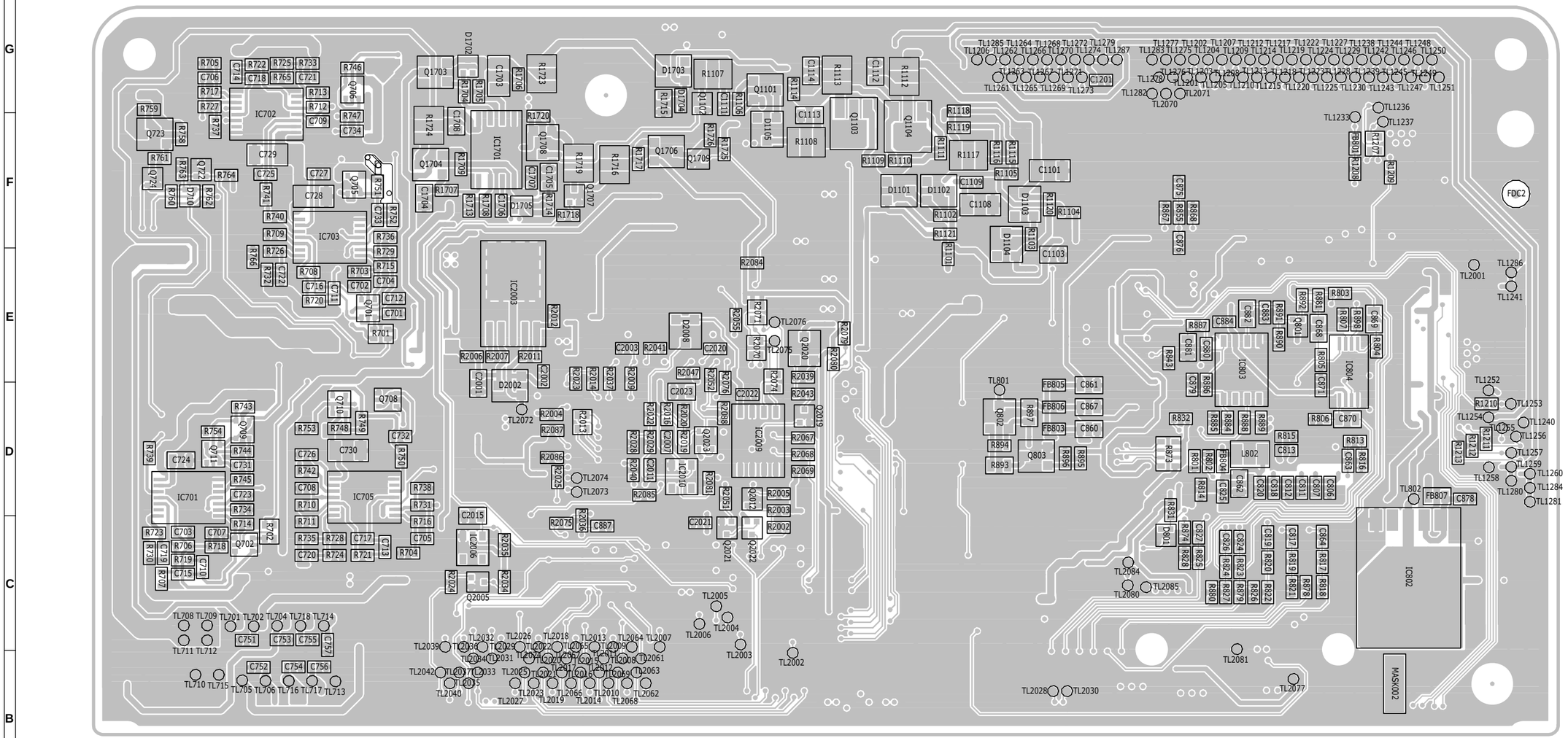
MAIN Unit (Side-A)



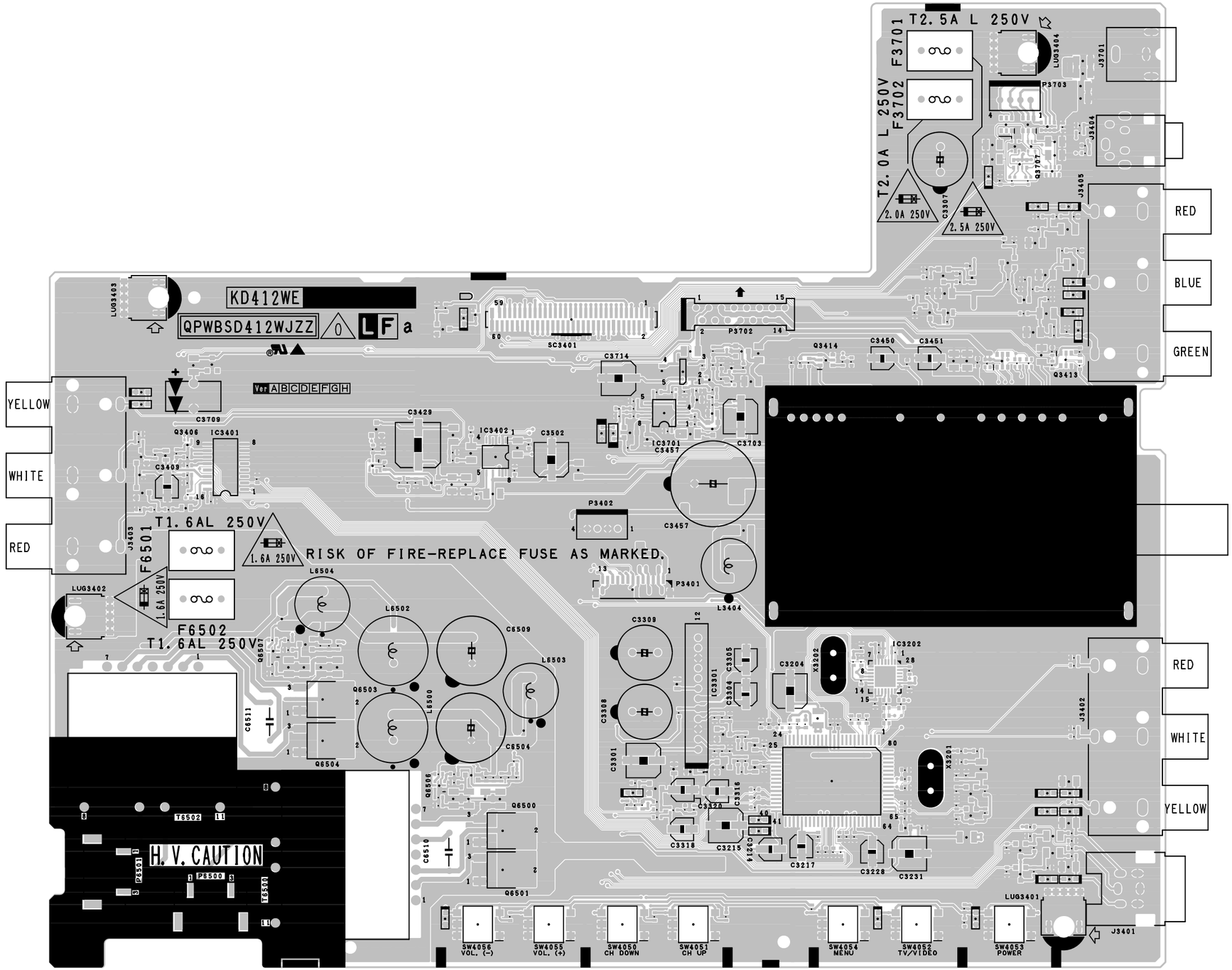
MAIN Unit (Chip Parts Side-A)



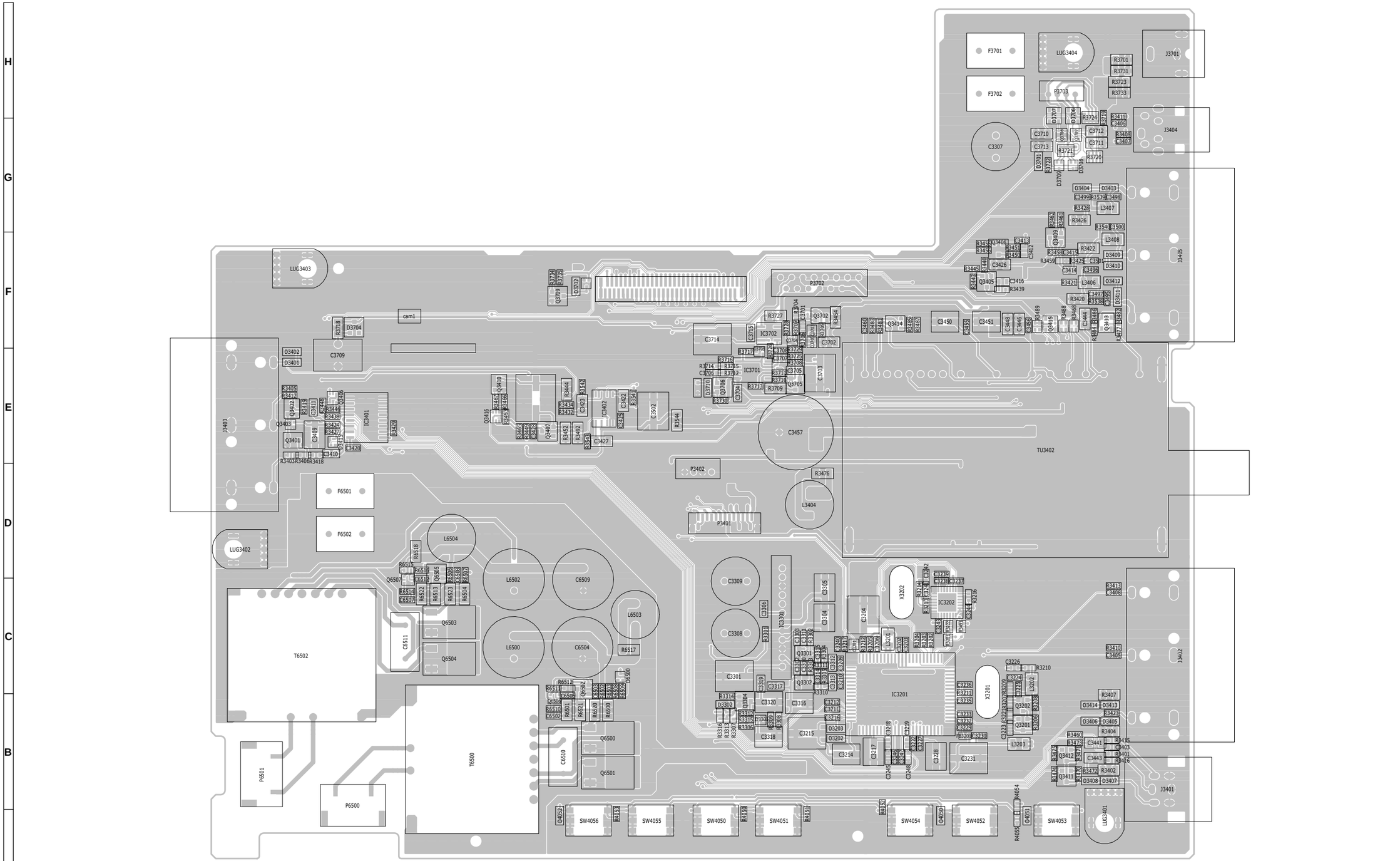
MAIN Unit (Side-B)



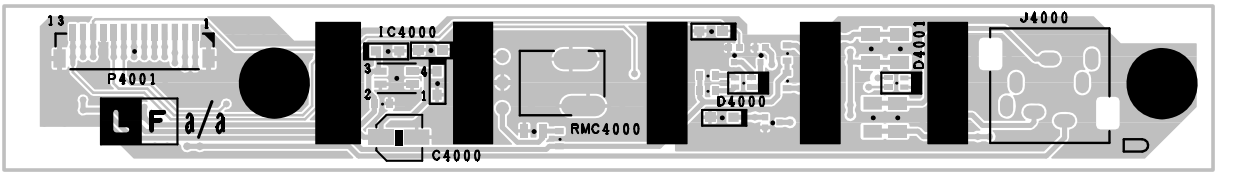
MAIN Unit (Chip Parts Side-B)



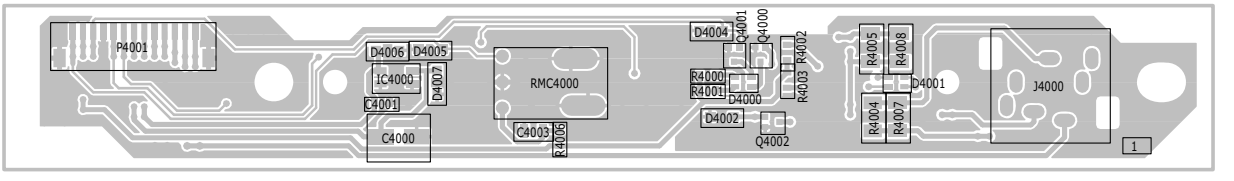
ANALOG Unit (Component Side)



ANALOG Unit (Chip Parts Side)



R/C, LED Unit (Component Side)
(QPWBSD413WJZZ)



R/C, LED Unit (Chip Parts Side)
(QPWBSD413WJZZ)

PARTS LIST

PARTS REPLACEMENT

Replacement parts which have these special safety characteristics identified in this manual ; electrical components having such features are identified by ⚠ and shaded areas in the Replacement Parts Lists and Schematic Diagrams. The use of a substitute replacement part which does no have the same safety characteristic as the factory recommended replacement parts shown in this service manual may create shock, fire or other hazards.

"HOW TO ORDER REPLACEMENT PARTS"

To have your order filled promptly and correctly, please furnish the following informations.

1. MODEL NUMBER 2. REF. NO.
3. PART NO. 4. DESCRIPTION

in **USA**: Contact your nearest SHARP Parts Distributor to order. For location of SHARP Parts Distributor, Please call Toll-Free; 1-800-BE-SHARP

★ MARK: SPARE PARTS-DELIVERY SECTION

Ref. No.	Part No.	★	Description	Code

PRINTED WIRING BOARD ASSEMBLYS
(NOT REPLACEMENT ITEM)

DUNTKC847FE08	–	MAIN Unit	—
DUNTKD412WE02	–	ANALOG Unit	—
DUNTKD413WE02	–	R/C,LED Unit	—

LCD PANEL

NOTE: THE PARTS HERES SHOWN ARE SUPPLIED AS AN ASSEMBLY BUT NOT INDEPENDENTLY.

RLCDTA024WJN1	J	15" LCD Panel Unit		CN

LISTE DES PIECES

CHANGE DES PIECES

Les pi`eces de rechange qui pr élelesentent ces caract éleristiques sp éleciales de s élecurit éle, sont identifi élees dans ce manuel : les pi`eces élelectriques qui pr élesentent ces particularit éles, sont rep éler élee par la marque ⚠ et sont hachur élees dans les listes de pi`eces et dans les diagrammes sch élematiques.
La substitution d'une pi`ece de rechange par une autre qui ne pr éLesente pas les m éoemes caract éLeristiques de s élecurit éle que la pi`ece recommand élee parl'usine et dans ce manuel de service, peut provoquer une éLelectrocution, un incendie ou toutautre sinistre.

"COMMENT COMMANDER LES PIECES DE RECHANGE"

Pour que votre commande soit rapidement et correctement remplie, veuillez fournir les renseignements suivants.

1. NUMERO DU MODELE 2. NO. DE REF
3. NO. DE PIECE 4. DESCRIPTION

in **CANADA**: Contact SHARP Electronics of Canada Limited Phone (416) 890-2100

★ MARQUE: SECTION LIVRAISON DES PIECES DERECHANGE

Ref. No.	Part No.	★	Description	Code

DUNTKC847FE08
MAIN Unit

INTEGRATED CIRCUITS

IC701	RH-iXA828WJZZY	J	BD9300FV-FE2	AH
IC702	RH-iXA828WJZZY	J	BD9300FV-FE2	AH
IC703	RH-iXA828WJZZY	J	BD9300FV-FE2	AH
IC801	RH-iXB150WJZZQ	J	R8A66605A02FP	BG
IC802	VHiPQ018EH1-1Y	J	PQ018EH01ZPH	AF
IC1101	VHiBD8120FP-1Y	J	BD8120FP	AX
IC1701	VHiNJM2147M-1Y	J	NJM2147M-TE1	AF
IC2001	RH-iXA631WJZZQ	J	M30622MWP267FP	AV
IC2003	VHiSi3010KM-1Y	J	SI-3010KM-TL	AF
IC2006	VHiPST3229N1EY	J	PST3229	AD
IC2009	VHiBR24L32F-1Y	J	BR24L32F-WE2	AG
IC2010	VHiPST3229N1EY	J	PST3229	AD
IC2011	VHiPQ1L333M-1Y	J	PQ1L333M2SP	AD

TRANSISTORS

Q705	VSUML2N++++-1Y	J	UML2N	AC
Q706	VSUML2N++++-1Y	J	UML2N	AC
Q709	VSUML1N++++-1Y	J	UML1N	AC
Q711	VSUML2N++++-1Y	J	UML2N	AC
Q712	VSRTQ035P02-1Y	J	RTQ035P02	AD
Q713	VSRTQ035P02-1Y	J	RTQ035P02	AD
Q716	VSRHP020N06-1Y	J	RHP020N06	AD
Q802	VSFMMT718//-1Y	J	FMMT718	AE
Q803	VS2SC3928AR-1Y	J	2SC3928AR	AB
Q1101	VSFMMT718//-1Y	J	FMMT718	AE
Q1102	VSDTC144EE/-1Y	J	DTC144EE	AA
Q1103	VS2SC5566++-1Y	J	2SC5566	AD
Q1104	VS2SA2013++-1Y	J	2SA2013	AD
Q1703	VS2SA1036K/-1Y	J	2SA1036K	AC
Q1704	VS2SC3928AR-1Y	J	2SC3928AR	AB
Q1705	VSDTC144EE/-1Y	J	DTC144EE	AA
Q1706	VS2SA1037KQ-1Y	J	2SA1037KQ	AA
Q1707	VSDTC144EE/-1Y	J	DTC144EE	AA
Q1708	VS2SA1037KQ-1Y	J	2SA1037KQ	AA
Q2005	VSDTC114YE/-1Y	J	DTC114YE	AB
Q2019	VSDTC114EE/-1Y	J	DTC144EE	AB
Q2020	VS2SA1037KQ-1Y	J	2SA1037KQ	AA
Q2021	VSDTC144EE/-1Y	J	DTC144EE	AA
Q2022	VSDTA144EE/-1Y	J	DTA144EE	AA

DIODES

D701	VHDRB051L40-1Y	J	Diode	AD

DUNTKC847FE08
MAIN Unit (Continued)

Ref. No.	Part No.	★	Description	Code
D702	VHDRB051L40-1Y	J	Diode	AD
D704	VHDSFPB56//2EY	J	Diode	AC
D705	VHDRB160M30-1Y	J	Diode	AC
D706	VHDRF071M2S-1Y	J	Diode	AD
D707	VHDRB160M30-1Y	J	Diode	AC
D708	VHDRB160M40-1Y	J	Diode	AC
D709	VHD1SS355//-1Y	J	Diode	AB
D801	VHDDAN222//-1Y	J	Diode	AA
D1101	VHDDAN202K/-1Y	J	Diode	AB
D1105	VHD1SS250//1EY	J	Diode	AB
D1701	VHDDAN222//-1Y	J	Diode	AA
D1702	VHDDAN222//-1Y	J	Diode	AA
D1703	VHD1SS250//1EY	J	Diode	AB
D1704	VHDRB521S30-1Y	J	Diode	AC
D1705	VHDDAN222//-1Y	J	Diode	AA
D2002	VHDDAN202K/-1Y	J	Diode	AB
D2007	VHDRB491D++-1Y	J	Diode	AD

PACKAGED CIRCUITS

X801	RCRSCA097WJZZY	J	Crystal, 54MHz	AG
X2001	RCRSC0032TAZZY	J	Crystal, 32.768kHz	AG

FILTER AND COILS

FL2001	RFiLZA003WJPZY	J	Filter, 16MHz	AD
L701	RCiLPA154WJZZY	J	Coil	AE
L703	RCiLPA154WJZZY	J	Coil	AE
L802	VPCNN220J2R9NY	J	Peaking 22µH	AB
L1701	VPCNN470J5R4NY	J	Peaking 47µH	AB
L1703	RCiLPA143WJZZY	J	Coil	AD

TRANSFORMER

T701	RTRNWA156WJZZY	J	Transformer	AG

CAPACITORS

C703	VCKYCY1EF104ZY	J	0.1	25V	Ceramic	AA
C704	VCKYCY1EB333KY	J	0.033	25V	Ceramic	AA
C706	VCKYCY1EB333KY	J	0.033	25V	Ceramic	AA
C707	VCKYCY1EB333KY	J	0.033	25V	Ceramic	AA
C710	VCKYCY1HB332KY	J	3300p	50V	Ceramic	AA
C711	VCCCCY1HH102JY	J	1000p	50V	Ceramic	AB
C714	VCCCCY1HH331JY	J	330p	50V	Ceramic	AA
C715	VCCCCY1HH330JY	J	33p	50V	Ceramic	AA
C719	VCCCCY1HH151JY	J	150p	50V	Ceramic	AA
C721	VCCCCY1HH101JY	J	100p	50V	Ceramic	AA
C722	VCCCCY1HH101JY	J	100p	50V	Ceramic	AA
C723	VCCCCY1HH181JY	J	180p	50V	Ceramic	AA
C724	VCKYTV1CB105KY	J	1	16V	Ceramic	AC
C725	VCKYCY1EB123KY	J	0.012	25V	Ceramic	AA
C727	VCKYCY1EB123KY	J	0.012	25V	Ceramic	AA
C728	RC-KZA109WJZZY	J	10	16V	Ceramic	AC
C729	RC-KZA109WJZZY	J	10	16V	Ceramic	AC
C731	VCCCCY1HH102JY	J	1000p	50V	Ceramic	AB
C733	VCCCCY1HH102JY	J	1000p	50V	Ceramic	AB
C734	VCCCCY1HH102JY	J	1000p	50V	Ceramic	AB
C735	RC-KZA101WJZZY	J	10	6.3V	Ceramic	AC
C736	RC-KZA101WJZZY	J	10	6.3V	Ceramic	AC
C738	RC-KZA108WJZZY	J	10	10V	Ceramic	AC
C739	RC-KZA108WJZZY	J	10	10V	Ceramic	AC
C741	VCKYCY1HB562KY	J	5600p	50V	Ceramic	AA
C742	VCEASX1CN106MY	J	10	16V	Electrolytic	AC
C744	RC-KZA215WJZZY	J	1	50V	Ceramic	AC
C745	RC-KZA109WJZZY	J	10	16V	Ceramic	AC
C747	RC-KZA109WJZZY	J	10	16V	Ceramic	AC
C749	RC-KZA109WJZZY	J	10	16V	Ceramic	AC
C750	RC-KZA109WJZZY	J	10	16V	Ceramic	AC
C801	VCKYCZ1AB333KY	J	0.033	10V	Ceramic	AB
C802	VCKYCZ1AB333KY	J	0.033	10V	Ceramic	AB
C803	VCKYCZ1AB104KY	J	0.1	10V	Ceramic	AB
C804	VCKYCZ1AB104KY	J	0.1	10V	Ceramic	AB
C805	VCKYCZ1AB104KY	J	0.1	10V	Ceramic	AB
C806	VCKYCY1CB104KY	J	0.1	16V	Ceramic	AB
C807	VCKYCY1CB104KY	J	0.1	16V	Ceramic	AB
C808	VCKYCZ1AB104KY	J	0.1	10V	Ceramic	AB
C809	VCKYCZ1AB104KY	J	0.1	10V	Ceramic	AB
C810	VCKYCZ1AB104KY	J	0.1	10V	Ceramic	AB
C811	VCKYCY1CB104KY	J	0.1	16V	Ceramic	AB
C812	VCKYCY1CB104KY	J	0.1	16V	Ceramic	AB
C813	VCKYCY1EB333KY	J	0.033	25V	Ceramic	AA
C814	VCKYCZ1AB104KY	J	0.1	10V	Ceramic	AB
C815	VCKYCZ1AB104KY	J	0.1	10V	Ceramic	AB
C816	VCKYCZ1AB104KY	J	0.1	10V	Ceramic	AB
C817	VCKYCY1HB104KY	J	0.1	50V	Ceramic	AA
C818	VCKYCY1CB104KY	J	0.1	16V	Ceramic	AB
C819	VCKYCY1HB104KY	J	0.1	50V	Ceramic	AA
C820	VCKYCY1CB104KY	J	0.1	16V	Ceramic	AB
C821	VCKYCZ1AB104KY	J	0.1	10V	Ceramic	AB
C822	VCKYCZ1AB104KY	J	0.1	10V	Ceramic	AB
C823	VCKYCZ1AB104KY	J	0.1	10V	Ceramic	AB
C824	VCKYCY1HB104KY	J	0.1	50V	Ceramic	AA
C825	VCKYCY1CB104KY	J	0.1	16V	Ceramic	AB
C826	VCKYCY1HB104KY	J	0.1	50V	Ceramic	AA
C827	VCKYCY1HB104KY	J	0.1	50V	Ceramic	AA
C828	VCKYCZ1AB104KY	J	0.1	10V	Ceramic	AB
C829	VCKYCZ1AB333KY	J	0.033	10V	Ceramic	AB
C830	VCKYCZ1AB333KY	J	0.033	10V	Ceramic	AB
C831	VCKYCZ1AB333KY	J	0.033	10V	Ceramic	AB
C832	VCKYCZ1AB104KY	J	0.1	10V	Ceramic	AB
C833	VCKYCZ1AB333KY	J	0.033	10V	Ceramic	AB
C834	VCKYCZ1AB333KY	J	0.033	10V	Ceramic	AB
C835	VCKYCZ1AB104KY	J	0.1	10V	Ceramic	AB
C836	VCKYCZ1AB333KY	J	0.033	10V	Ceramic	AB
C837	VCKYCZ1AB333KY	J	0.033	10V	Ceramic	AB
C838	VCKYCZ1AB333KY	J	0.033	10V	Ceramic	AB
C839	VCKYCZ1AB333KY	J	0.033	10V	Ceramic	AB
C840	VCKYCZ1AB333KY	J	0.033	10V	Ceramic	AB
C841	VCKYCZ1AB333KY	J	0.033	10V	Ceramic	AB
C842	VCKYCZ1AB333KY	J	0.033	10V	Ceramic	AB
C843	VCKYCZ1AB333KY	J	0.033	10V	Ceramic	AB
C844	VCKYCZ1AB333KY	J	0.033	10V	Ceramic	AB
C845	VCKYCZ1AB333KY	J	0.033	10V	Ceramic	AB
C846	VCKYCZ1AB333KY	J	0.033	10V	Ceramic	AB
C847	VCKYCZ1AB333KY	J	0.033	10V	Ceramic	AB
C848	VCKYCZ1AB333KY	J	0.033	10V	Ceramic	AB
C849	VCKYCZ1AB333KY	J	0.033	10V	Ceramic	AB
C850	VCKYCZ1AB333KY	J	0.033	10V	Ceramic	AB
C851	VCKYCZ1AB104KY	J	0.1	10V	Ceramic	AB
C852	VCKYCZ1AB333KY	J	0.033	10V	Ceramic	AB
C853	VCKYCZ1AB333KY	J	0.033	10V	Ceramic	AB
C854	VCKYCZ1AB333KY	J	0.033	10V	Ceramic	AB
C855	VCKYCZ1AB104KY	J	0.1	10V	Ceramic	AB
C856	VCKYCZ1AB333KY	J	0.033	10V	Ceramic	AB
C857	VCKYCZ1AB333KY	J	0.033	10V	Ceramic	AB
C858	VCKYCZ1AB104KY	J	0.1	10V	Ceramic	AB
C859	VCKYCZ1AB333KY	J	0.033	10V	Ceramic	AB
C860	RC-KZA101WJZZY	J	10	6.3V	Ceramic	AC
C861	RC-KZA101WJZZY	J	10	6.3V	Ceramic	AC
C862	RC-KZA101WJZZY	J	10	6.3V	Ceramic	AC
C863	VCKYCY1HB104KY	J	0.1	50V	Ceramic	AA
C864	VCKYCY1HB104KY	J	0.1	50V	Ceramic	AA
C865	VCCCCY1HH5R0CY	J	5p	50V	Ceramic	AA
C866	VCCCCY1HH5R0CY	J	5p	50V	Ceramic	AA
C867	RC-KZA101WJZZY	J	10	6.3V	Ceramic	AC
C872	VCEASX0JN227MY	J	220	6.3V	Electrolytic	AC
C874	VCKYCZ1AB104KY	J	0.1	10V	Ceramic	AB
C875	VCKYCY1HB103KY	J	0.01	50V	Ceramic	AA
C876	VCKYCY1HB102KY	J	1000p	50V	Ceramic	AA
C877	VCEASX0JN476MY	J	47	6.3V	Electrolytic	AC
C878	VCKYCY1AF105ZY	J	1	10V	Ceramic	AC
C886	VCEASY1CN477MY	J	470	16V	Electrolytic	AD
C887	VCKYCY1HB103KY	J	0.01	50V	Ceramic	AA
C1101	RC-KZA108WJZZY	J	10	10V	Ceramic	AC
C1102	VCAAPD0JJ476MY	J	47	6.3V	Electrolytic	AE
C1103	RC-KZA101WJZZY	J	10	6.3V	Ceramic	AC
C1105	VCKYCY1EF104ZY	J	0.1	25V	Ceramic	AA
C1106	RC-KZA108WJZZY	J	10	10V	Ceramic	AC
C1107	VCCCCY1HH560JY	J	56p	50V	Ceramic	AB

DUNTKC847FE08

MAIN Unit (Continued)

Ref. No.	Part No.	★			Description	Code
C1108	RC-KZA108WJZZY	J	10	10V	Ceramic	AC
C1109	VCKYCY1EF104ZY	J	0.1	25V	Ceramic	AA
C1112	VCKYTV1CB105KY	J	1	16V	Ceramic	AC
C1113	VCKYTV1CB105KY	J	1	16V	Ceramic	AC
C1114	VCKYTV1EB104KY	J	0.1	25V	Ceramic	AB
C1201	VCKYCY1AB105KY	J	1	10V	Ceramic	AB
C1702	VCKYCY1EF104ZY	J	0.1	25V	Ceramic	AA
C1703	RC-KZA108WJZZY	J	10	10V	Ceramic	AC
C1705	RC-KZ0071TAZZY	J	2.2	6.3V	Ceramic	AD
C1706	VCKYCY1EF104ZY	J	0.1	25V	Ceramic	AA
C1707	VCKYCY1EF104ZY	J	0.1	25V	Ceramic	AA
C1708	VCKYTV1HF104ZY	J	0.1	50V	Ceramic	AB
C1710	VCEASX1HN475MY	J	4.7	50V	Electrolytic	AC
C1711	VCKYCY1HF104ZY	J	0.1	50V	Ceramic	AA
C1712	VCEASX1HN106MY	J	10	50V	Electrolytic	AC
C1713	VCEASY0JN227MY	J	220	6.3V	Electrolytic	AC
C1714	RC-KZA101WJZZY	J	10	6.3V	Ceramic	AC
C2001	VCKYTV1CF105ZY	J	1	16V	Ceramic	AB
C2002	VCKYCY1EF104ZY	J	0.1	25V	Ceramic	AA
C2004	VCEASN0JN226MY	J	22	6.3V	Electrolytic	AB
C2005	VCKYCY1EF104ZY	J	0.1	25V	Ceramic	AA
C2006	VCEASN0JN226MY	J	22	6.3V	Electrolytic	AB
C2008	VCKYCY1EF104ZY	J	0.1	25V	Ceramic	AA
C2009	VCKYCY1EF104ZY	J	0.1	25V	Ceramic	AA
C2010	VCKYCY1HB222KY	J	2200p	50V	Ceramic	AA
C2012	VCKYCY1HB222KY	J	2200p	50V	Ceramic	AA
C2013	VCKYCY1HB102KY	J	1000p	50V	Ceramic	AA
C2014	VCKYCY1EF104ZY	J	0.1	25V	Ceramic	AA
C2015	VCKYTV1CF684ZY	J	0.68	16V	Ceramic	AB
C2016	VCCCCY1HH100DY	J	10p	50V	Ceramic	AA
C2017	VCCCCY1HH120JY	J	12p	50V	Ceramic	AA
C2018	RC-KZA101WJZZY	J	10	6.3V	Ceramic	AC
C2019	VCKYCY1EF104ZY	J	0.1	25V	Ceramic	AA
C2020	VCKYCY1HB222KY	J	2200p	50V	Ceramic	AA
C2021	VCKYCY1EF104ZY	J	0.1	25V	Ceramic	AA
C2022	VCKYCY1EF104ZY	J	0.1	25V	Ceramic	AA

RESISTORS

R703	VRS-CY1JF333JY	J	33k	1/16W	Metal Oxide	AA
R705	VRS-CY1JF333JY	J	33k	1/16W	Metal Oxide	AA
R706	VRS-CY1JF104DY	J	100k	1/16W	Metal Oxide	AA
R707	VRS-CY1JF104DY	J	100k	1/16W	Metal Oxide	AA
R708	VRS-CY1JF104DY	J	100k	1/16W	Metal Oxide	AA
R709	VRS-CY1JF104DY	J	100k	1/16W	Metal Oxide	AA
R712	VRS-CY1JF104DY	J	100k	1/16W	Metal Oxide	AA
R713	VRS-CY1JF104DY	J	100k	1/16W	Metal Oxide	AA
R714	VRS-CY1JF333JY	J	33k	1/16W	Metal Oxide	AA
R715	VRS-CY1JF223JY	J	22k	1/16W	Metal Oxide	AA
R717	VRS-CY1JF223JY	J	22k	1/16W	Metal Oxide	AA
R718	VRS-CY1JF223JY	J	22k	1/16W	Metal Oxide	AA
R719	VRS-CY1JF104JY	J	100k	1/16W	Metal Oxide	AA
R720	VRS-CY1JF223JY	J	22k	1/16W	Metal Oxide	AA
R722	VRS-CY1JF223JY	J	22k	1/16W	Metal Oxide	AA
R723	VRS-CY1JF123FY	J	12k	1/16W	Metal Oxide	AA
R725	VRS-CY1JF333FY	J	33k	1/16W	Metal Oxide	AA
R726	VRS-CY1JF203FY	J	20k	1/16W	Metal Oxide	AA
R727	VRS-CY1JF000JY	J	0	1/16W	Metal Oxide	AA
R729	VRS-CY1JF000JY	J	0	1/16W	Metal Oxide	AA
R730	VRS-CY1JF393FY	J	39k	1/16W	Metal Oxide	AA
R732	VRS-CY1JF333FY	J	33k	1/16W	Metal Oxide	AA
R733	VRS-CY1JF104FY	J	100k	1/16W	Metal Oxide	AA
R734	VRS-CY1JF562JY	J	5.6k	1/16W	Metal Oxide	AA
R739	VRS-CY1JF103JY	J	10k	1/16W	Metal Oxide	AA
R740	VRS-CY1JF103JY	J	10k	1/16W	Metal Oxide	AA
R741	VRS-CY1JF103JY	J	10k	1/16W	Metal Oxide	AA
R743	VRS-CY1JF101JY	J	100	1/16W	Metal Oxide	AA
R744	VRS-CY1JF331JY	J	330	1/16W	Metal Oxide	AA
R745	VRS-CY1JF511JY	J	510	1/16W	Metal Oxide	AA
R746	VRS-CY1JF511JY	J	510	1/16W	Metal Oxide	AA
R747	VRS-CY1JF511JY	J	510	1/16W	Metal Oxide	AA
R751	VRS-CY1JF511JY	J	510	1/16W	Metal Oxide	AA
R752	VRS-CY1JF511JY	J	510	1/16W	Metal Oxide	AA
R754	VRS-CY1JF303JY	J	30k	1/16W	Metal Oxide	AA
R755	VRS-TW2HF272JY	J	2.7k	1/2W	Metal Oxide	AA
R756	VRS-TW2HF272JY	J	2.7k	1/2W	Metal Oxide	AA
R757	VRS-TW2HF000JY	J	0	1/2W	Metal Oxide	AA
R759	VRS-CY1JF000JY	J	0	1/16W	Metal Oxide	AA
R760	VRS-CY1JF000JY	J	0	1/16W	Metal Oxide	AA
R765	VRS-CY1JF105JY	J	1M	1/16W	Metal Oxide	AA
R766	VRS-CY1JF394JY	J	390k	1/16W	Metal Oxide	AA
R801	VRS-CY1JF000JY	J	0	1/16W	Metal Oxide	AA
R808	VRS-TV1JD000JY	J	0	1/10W	Metal Oxide	AA
R809	VRS-CY1JF000JY	J	0	1/16W	Metal Oxide	AA
R810	VRS-CY1JF101JY	J	100	1/16W	Metal Oxide	AA
R811	VRS-CY1JF105JY	J	1M	1/16W	Metal Oxide	AA
R812	VRS-CH1JF563JY	J	56k	1/16W	Metal Oxide	AA
R813	VRS-CY1JF680JY	J	68	1/16W	Metal Oxide	AA
R814	VRS-CY1JF000JY	J	0	1/16W	Metal Oxide	AA
R815	VRS-CY1JF000JY	J	0	1/16W	Metal Oxide	AA
R816	VRS-CY1JF750JY	J	75	1/16W	Metal Oxide	AA
R817	VRS-CY1JF000JY	J	0	1/16W	Metal Oxide	AA
R819	VRS-CY1JF000JY	J	0	1/16W	Metal Oxide	AA
R820	VRS-CY1JF000JY	J	0	1/16W	Metal Oxide	AA
R823	VRS-CY1JF000JY	J	0	1/16W	Metal Oxide	AA
R824	VRS-CY1JF000JY	J	0	1/16W	Metal Oxide	AA
R825	VRS-CY1JF000JY	J	0	1/16W	Metal Oxide	AA
R826	VRS-CY1JF102JY	J	1k	1/16W	Metal Oxide	AA
R831	VRS-CY1JF223JY	J	22k	1/16W	Metal Oxide	AA
R832	VRS-CY1JF103JY	J	10k	1/16W	Metal Oxide	AA
R843	VRS-CY1JF103JY	J	10k	1/16W	Metal Oxide	AA
R855	VRS-CY1JF102JY	J	1k	1/16W	Metal Oxide	AA
R860	VRS-CY1JF220JY	J	22	1/16W	Metal Oxide	AA
R861	VRS-CY1JF220JY	J	22	1/16W	Metal Oxide	AA
R867	VRS-CY1JF103JY	J	10k	1/16W	Metal Oxide	AA
R868	VRS-CY1JF103JY	J	10k	1/16W	Metal Oxide	AA
R869	VRS-CY1JF103JY	J	10k	1/16W	Metal Oxide	AA
R873	VRS-CH1JF103JY	J	10k	1/16W	Metal Oxide	AA
R874	VRS-CY1JF223JY	J	22k	1/16W	Metal Oxide	AA
R876	VRS-CJ1JF100JY	J	10	1/16W	Metal Oxide	AA
R878	VRS-CY1JF000JY	J	0	1/16W	Metal Oxide	AA
R879	VRS-CY1JF102JY	J	1k	1/16W	Metal Oxide	AA
R880	VRS-CY1JF000JY	J	0	1/16W	Metal Oxide	AA
R882	VRS-CY1JF470JY	J	47	1/16W	Metal Oxide	AA
R883	VRS-CY1JF470JY	J	47	1/16W	Metal Oxide	AA
R893	VRS-TV1JD102JY	J	1k	1/10W	Metal Oxide	AA
R894	VRS-CY1JF473JY	J	47k	1/16W	Metal Oxide	AA
R895	VRS-CY1JF103JY	J	10k	1/16W	Metal Oxide	AA
R896	VRS-CY1JF473JY	J	47k	1/16W	Metal Oxide	AA
R1101	VRS-CY1JF103JY	J	10k	1/16W	Metal Oxide	AA
R1102	VRS-CY1JF000JY	J	0	1/16W	Metal Oxide	AA
R1104	VRS-CY1JF472FY	J	4.7k	1/16W	Metal Oxide	AA
R1105	VRS-CY1JF472FY	J	4.7k	1/16W	Metal Oxide	AA
R1106	VRS-CY1JF472JY	J	4.7k	1/16W	Metal Oxide	AA
R1107	VRS-TW2ED102JY	J	1k	1/4W	Metal Oxide	AA
R1108	VRS-TW2HF5R6JY	J	5.6	1/2W	Metal Oxide	AA
R1109	VRS-CY1JF181JY	J	180	1/16W	Metal Oxide	AA
R1110	VRS-CY1JF102JY	J	1k	1/16W	Metal Oxide	AA
R1111	VRS-CY1JF181JY	J	180	1/16W	Metal Oxide	AA
R1112	VRS-TW2HF5R6JY	J	5.6	1/2W	Metal Oxide	AA
R1113	VRS-TW2HF101JY	J	100	1/2W	Metal Oxide	AA
R1114	VRS-CY1JF103JY	J	10k	1/16W	Metal Oxide	AA
R1115	VRS-CY1JF000JY	J	0	1/16W	Metal Oxide	AA
R1117	VRS-TW2HF000JY	J	0	1/2W	Metal Oxide	AA
R1119	VRS-CY1JF000JY	J	0	1/16W	Metal Oxide	AA
R1120	VRS-CY1JF000JY	J	0	1/16W	Metal Oxide	AA
R1201	VRS-CH1JF470JY	J	47	1/16W	Metal Oxide	AA
R1202	VRS-CH1JF470JY	J	47	1/16W	Metal Oxide	AA
R1203	VRS-CH1JF470JY	J	47	1/16W	Metal Oxide	AA
R1204	VRS-CH1JF470JY	J	47	1/16W	Metal Oxide	AA
R1205	VRS-CH1JF470JY	J	47	1/16W	Metal Oxide	AA
R1206	VRS-CH1JF470JY	J	47	1/16W	Metal Oxide	AA
R1207	VRS-CJ1JF270JY	J	27	1/16W	Metal Oxide	AA
R1208	VRS-CY1JF470JY	J	47	1/16W	Metal Oxide	AA
R1209	VRS-CY1JF220JY	J	22	1/16W	Metal Oxide	AA
R1210	VRS-CY1JF220JY	J	22	1/16W	Metal Oxide	AA
R1211	VRS-CY1JF220JY	J	22	1/16W	Metal Oxide	AA

DUNTKC847FE08

MAIN Unit (Continued)

Ref. No.	Part No.	★			Description	Code
R1212	VRS-CY1JF220JY	J	22	1/16W	Metal Oxide	AA
R1213	VRS-CY1JF220JY	J	22	1/16W	Metal Oxide	AA
R1701	VRS-CY1JF363FY	J	36k	1/16W	Metal Oxide	AA
R1704	VRS-CY1JF101JY	J	100	1/16W	Metal Oxide	AA
R1705	VRS-CY1JF563FY	J	56k	1/16W	Metal Oxide	AA
R1706	VRS-CY1JF103JY	J	10k	1/16W	Metal Oxide	AA
R1707	VRS-CY1JF102JY	J	1k	1/16W	Metal Oxide	AA
R1709	VRS-CY1JF683FY	J	68k	1/16W	Metal Oxide	AA
R1713	VRS-CY1JF183FY	J	18k	1/16W	Metal Oxide	AA
R1714	VRS-CY1JF103JY	J	10k	1/16W	Metal Oxide	AA
R1715	VRS-TV1JD562JY	J	5.6k	1/10W	Metal Oxide	AA
R1716	VRS-TW2HF102JY	J	1k	1/2W	Metal Oxide	AA
R1717	VRS-CY1JF472JY	J	4.7k	1/16W	Metal Oxide	AA
R1718	VRS-CY1JF000JY	J	0	1/16W	Metal Oxide	AA
R1719	VRS-TW2ED123JY	J	12k	1/4W	Metal Oxide	AA
R1720	VRS-CY1JF272JY	J	2.7k	1/16W	Metal Oxide	AA
R1722	VRS-TW2HF472JY	J	4.7k	1/2W	Metal Oxide	AA
R1723	VRS-TW2HF330JY	J	33	1/2W	Metal Oxide	AA
R1724	VRS-TW2ED561JY	J	560	1/4W	Metal Oxide	AA
R1725	VRS-CY1JF102JY	J	1k	1/16W	Metal Oxide	AA
R1726	VRS-CY1JF104JY	J	100k	1/16W	Metal Oxide	AA
R2005	VRS-CY1JF223JY	J	22k	1/16W	Metal Oxide	AA
R2006	VRS-CY1JF1R0JY	J	1	1/16W	Metal Oxide	AA
R2007	VRS-CY1JF103JY	J	10k	1/16W	Metal Oxide	AA
R2008	VRS-CY1JF102FY	J	1k	1/16W	Metal Oxide	AA
R2009	VRS-CY1JF102JY	J	1k	1/16W	Metal Oxide	AA
R2010	VRS-CY1JF623FY	J	62k	1/16W	Metal Oxide	AA
R2011	VRS-CY1JF433FY	J	43k	1/16W	Metal Oxide	AA
R2012	VRS-CY1JF103FY	J	10k	1/16W	Metal Oxide	AA
R2013	VRS-CJ1JF101JY	J	100	1/16W	Metal Oxide	AA
R2014	VRS-CY1JF101JY	J	100	1/16W	Metal Oxide	AA
R2015	VRS-CY1JF101JY	J	100	1/16W	Metal Oxide	AA
R2016	VRS-CY1JF473FY	J	47k	1/16W	Metal Oxide	AA
R2017	VRS-CJ1JF223JY	J	22k	1/16W	Metal Oxide	AA
R2018	VRS-CJ1JF102JY	J	1k	1/16W	Metal Oxide	AA
R2019	VRS-CY1JF823FY	J	82k	1/16W	Metal Oxide	AA
R2020	VRS-CY1JF124FY	J	120k	1/16W	Metal Oxide	AA
R2021	VRS-CY1JF274JY	J	270k	1/16W	Metal Oxide	AA
R2022	VRS-CY1JF393FY	J	39k	1/16W	Metal Oxide	AA
R2023	VRS-CY1JF184JY	J	180k	1/16W	Metal Oxide	AA
R2024	VRS-CY1JF823JY	J	82k	1/16W	Metal Oxide	AA
R2026	VRS-CY1JF103JY	J	10k	1/16W	Metal Oxide	AA
R2028	VRS-CY1JF124FY	J	120k	1/16W	Metal Oxide	AA
R2029	VRS-CY1JF473JY	J	47k	1/16W	Metal Oxide	AA
R2030	VRS-CJ1JF223JY	J	22k	1/16W	Metal Oxide	AA
R2031	VRS-CY1JF103JY	J	10k	1/16W	Metal Oxide	AA
R2034	VRS-CY1JF153JY	J	15k	1/16W	Metal Oxide	AA
R2035	VRS-CY1JF223JY	J	22k	1/16W	Metal Oxide	AA
R2036	VRS-CY1JF101JY	J	100	1/16W	Metal Oxide	AA
R2038	VRS-CH1JF101JY	J	100	1/16W	Metal Oxide	AA
R2039	VRS-CY1JF103JY	J	10k	1/16W	Metal Oxide	AA
R2040	VRS-CY1JF101JY	J	100	1/16W	Metal Oxide	AA
R2041	VRS-CY1JF512JY	J	5.1k	1/16W	Metal Oxide	AA
R2043	VRS-CY1JF472JY	J	4.7k	1/16W	Metal Oxide	AA
R2044	VRS-CJ1JF101JY	J	100	1/16W	Metal Oxide	AA
R2045	VRS-CY1JF000JY	J	0	1/16W	Metal Oxide	AA
R2046	VRS-CY1JF680JY	J	68	1/16W	Metal Oxide	AA
R2047	VRS-CY1JF103JY	J	10k	1/16W	Metal Oxide	AA
R2048	VRS-CY1JF101JY	J	100	1/16W	Metal Oxide	AA
R2050	VRS-CY1JF101JY	J	100	1/16W	Metal Oxide	AA
R2051	VRS-CY1JF101JY	J	100	1/16W	Metal Oxide	AA
R2053	VRS-CY1JF101JY	J	100	1/16W	Metal Oxide	AA
R2054	VRS-CY1JF101JY	J	100	1/16W	Metal Oxide	AA
R2055	VRS-CY1JF101JY	J	100	1/16W	Metal Oxide	AA
R2056	VRS-CJ1JF101JY	J	100	1/16W	Metal Oxide	AA
R2058	VRS-CJ1JF682JY	J	6.8k	1/16W	Metal Oxide	AA
R2059	VRS-CY1JF104JY	J	100k	1/16W	Metal Oxide	AA
R2060	VRS-CY1JF101JY	J	100	1/16W	Metal Oxide	AA
R2063	VRS-CY1JF101JY	J	100	1/16W	Metal Oxide	AA
R2064	VRS-CY1JF101JY	J	100	1/16W	Metal Oxide	AA
R2065	VRS-CY1JF101JY	J	100	1/16W	Metal Oxide	AA
R2066	VRS-CY1JF101JY	J	100	1/16W	Metal Oxide	AA
R2068	VRS-CY1JF101JY	J	100	1/16W	Metal Oxide	AA
R2069	VRS-CY1JF223JY	J	22k	1/16W	Metal Oxide	AA
R2070	VRS-CJ1JF101JY	J	100	1/16W	Metal Oxide	AA
R2071	VRS-CJ1JF153JY	J	15k	1/16W	Metal Oxide	AA
R2072	VRS-CH1JF680JY	J	68	1/16W	Metal Oxide	AA
R2073	VRS-CH1JF101JY	J	100	1/16W	Metal Oxide	AA
R2074	VRS-CJ1JF101JY	J	100	1/16W	Metal Oxide	AA
R2076	VRS-CY1JF103JY	J	10k	1/16W	Metal Oxide	AA
R2078	VRS-CJ1JF101JY	J	100	1/16W	Metal Oxide	AA
R2081	VRS-CY1JF101JY	J	100	1/16W	Metal Oxide	AA
R2082	VRS-CJ1JF101JY	J	100	1/16W	Metal Oxide	AA
R2085	VRS-CY1JF101JY	J	100	1/16W	Metal Oxide	AA
R2086	VRS-CY1JF103JY	J	10k	1/16W	Metal Oxide	AA
R2087	VRS-CY1JF103JY	J	10k	1/16W	Metal Oxide	AA

MISCELLANEOUS PARTS

FB702	RBLN-0253TAZZY	J	Ferrite Bead	AA
FB704	RBLN-0209TAZZY	J	Ferrite Bead	AB
FB705	RBLN-0253TAZZY	J	Ferrite Bead	AA
FB706	RBLN-0051TAZZY	J	Ferrite Bead	AC
FB707	RBLN-0253TAZZY	J	Ferrite Bead	AA
FB708	RBLN-0253TAZZY	J	Ferrite Bead	AA
FB709	RBLN-0051TAZZY	J	Ferrite Bead	AC
FB710	RBLN-0253TAZZY	J	Ferrite Bead	AA
FB711	RBLN-0253TAZZY	J	Ferrite Bead	AA
FB801	RBLN-0083GEZZY	J	Ferrite Bead	AB
FB803	RBLN-0006TAZZY	J	Ferrite Bead	AB
FB805	RBLN-0006TAZZY	J	Ferrite Bead	AB
FB806	RBLN-0006TAZZY	J	Ferrite Bead	AB
FB807	RBLN-0210TAZZY	J	Ferrite Bead	AB
P2002	QPLGNA144WJZZY	J	Plug, 20-pin	AF
SC701	QCNCWA010WJZZY	J	Connector, 15-pin	AE
SC1201	QSOCNA476WJZZY	J	Socket, 50-pin	AD
SC1202	QSOCNA473WJZZY	J	Socket, 30-pin	AE
SC1203	QSOCNA472WJZZY	J	Socket, 20-pin	AD
SC2001	QSOCNA478WJZZY	J	Socket, 60-pin	AF
LUG2002	QLUGHA006WJZZY	J	Lug	AC
LUG2053	QLUGHA006WJZZY	J	Lug	AC

DUNTKD412WE02
ANALOG Unit

TUNER

NOTE: THE PARTS HERES SHOWN ARE SUPPLIED AS AN ASSEMBLY BUT NOT INDEPENDENTLY.

Ref. No.	Part No.	★	Description	Code
TU3402	VTUVT2U5UF559	J	Tuner	BB

INTEGRATED CIRCUITS

Ref. No.	Part No.	★	Description	Code
IC3201	RH-iXB302WJN1Q	J	MSP3445G-QA-S1	AT
IC3301	VHiLA4635A+-1S	J	LA4635A	AM
IC3401	VHiTC4053BF1EY	J	TC4053BF	AF
IC3402	VHiNJM2246M-1Y	J	NJM2246M	AF
IC3702	VHiSi3012LU-1Y	J	Si-3012LU	AE

TRANSISTORS

Ref. No.	Part No.	★	Description	Code
Q3201	VS2SC3928AR-1Y	J	2SC3928AR	AB
Q3202	VS2SC3928AR-1Y	J	2SC3928AR	AB
Q3301	VSDTC314TK/-1Y	J	DTC314TK	AC
Q3302	VSDTC314TK/-1Y	J	DTC314TK	AC
Q3304	VS2SC3928AR-1Y	J	2SC3928AR	AB
Q3401	VSDTC314TK/-1Y	J	DTC314TK	AC
Q3402	VSDTC314TK/-1Y	J	DTC314TK	AC
Q3403	VSDTA144EE/-1Y	J	DTA144EE	AA
Q3405	VS2SC3928AR-1Y	J	2SC3928AR	AB
Q3406	VSUMG4N++++-1Y	J	UMG4N	AB
Q3407	VS2SC3928AR-1Y	J	2SC3928AR	AB
Q3408	VS2SC3928AR-1Y	J	2SC3928AR	AB
Q3409	VS2SC3928AR-1Y	J	2SC3928AR	AB
Q3410	VSDTC314TK/-1Y	J	DTC314TK	AC
Q3411	VS2SC3928AR-1Y	J	2SC3928AR	AB
Q3412	VS2SC3928AR-1Y	J	2SC3928AR	AB
Q3414	VSiMZ1A////-1Y	J	IMZ1A	AC
Q3416	VSUM6K1NTN+-1Y	J	UM6K1NTN	AC
Q3701	VSDTC114YE/-1Y	J	DTC114YE	AB
Q3702	VSFMMT718//-1Y	J	FMMT718	AE
Q3703	VS2SA1989R/-1Y	J	2SA1989R	AB
Q3704	VSDTC144EE/-1Y	J	DTC144EE	AA
Q3707	VSUM5K1NTR+-1Y	J	UM5K1NTR	AC
Q3708	VSUM5K1NTR+-1Y	J	UM5K1NTR	AC
Q6500	VS2SC5886++-1Y	J	2SC5886	AE
Q6501	VS2SC5886++-1Y	J	2SC5886	AE
Q6502	VS2SA1530AR-1Y	J	2SA1530AR	AB
Q6503	VS2SC5886++-1Y	J	2SC5886	AE
Q6504	VS2SC5886++-1Y	J	2SC5886	AE
Q6505	VS2SA1530AR-1Y	J	2SA1530AR	AB

DIODES

Ref. No.	Part No.	★	Description	Code
D3301	VHDDAN222//-1Y	J	Diode	AA
D3302	RH-EX1397CEZZY	J	Zener Diode, 7.5V	AB
D3415	VHDDAN222//-1Y	J	Diode	AA
D3703	VHDDAN222//-1Y	J	Diode	AA
D3704	VHDRB491D++-1Y	J	Diode	AD
D3706	VHDiMN10///-1Y	J	Diode	AB
D3707	VHDiMN10///-1Y	J	Diode	AB
D3708	VHDDAN222//-1Y	J	Diode	AA
D3709	VHDDAN222//-1Y	J	Diode	AA
D3710	RH-EXA095WJZZY	J	Zener Diode, 16V	AB
D3711	RH-EXA095WJZZY	J	Zener Diode, 16V	AB
D4050	RH-EX1271CEZZY	J	Zener Diode, 12V	AB
D4051	RH-EX1283CEZZY	J	Zener Diode, 18V	AB
D4052	RH-EX1271CEZZY	J	Zener Diode, 12V	AB
D6500	VHDDAN222//-1Y	J	Diode	AA

PACKAGED CIRCUITS

Ref. No.	Part No.	★	Description	Code
X3201	RCRSB0250GEZZ	J	Crystal, 18.432MHz	AG

COILS

Ref. No.	Part No.	★	Description	Code
L3201	VPCNN4R7J1R2NY	J	Peaking 4.7µH	AB
L3202	VPCNN220J2R9NY	J	Peaking 22µH	AB
L3203	VPCNN101J7R7NY	J	Peaking 100µH	AB
L3404	RCiLPA142WJZZ	J	Coil	AD
L3406	VPCNN1R0JR50NY	J	Peaking 1µH	AB
L6500	RCiLPA093WJZZ	J	Coil	AF
L6502	RCiLPA093WJZZ	J	Coil	AF
L6503	RCiLPA034WJZZ	J	Coil	AD
L6504	RCiLPA034WJZZ	J	Coil	AD

TRANSFORMER

Ref. No.	Part No.	★	Description	Code
⚠ T6500	RTRNZA083WJZZ	J	Transformer	AN
⚠ T6502	RTRNZA083WJZZ	J	Transformer	AN

CAPACITORS

Ref. No.	Part No.	★				Code
C3202	VCKYCY1EF104ZY	J	0.1	25V	Ceramic	AA
C3203	VCKYCY1AB105KY	J	1	10V	Ceramic	AB
C3204	VCEASX0JN107MY	J	100	6.3V	Electrolytic	AC
C3206	VCKYCY1HB102KY	J	1000p	50V	Ceramic	AA
C3209	VCKYCY1HB102KY	J	1000p	50V	Ceramic	AA
C3210	VCKYCY1HB102KY	J	1000p	50V	Ceramic	AA
C3211	VCKYCY1EB223KY	J	0.022	25V	Ceramic	AA
C3212	VCKYCY1EB223KY	J	0.022	25V	Ceramic	AA
C3214	VCEASX1CN106MY	J	10	16V	Electrolytic	AC
C3215	VCEASX1CN107MY	J	100	16V	Electrolytic	AC
C3216	VCKYCY1EF104ZY	J	0.1	25V	Ceramic	AA
C3217	VCEASX1HN335MY	J	3.3	50V	Electrolytic	AB
C3218	VCKYCY1EF104ZY	J	0.1	25V	Ceramic	AA
C3223	VCKYCY1EF104ZY	J	0.1	25V	Ceramic	AA
C3224	VCCCCY1HH330JY	J	33p	50V	Ceramic	AA
C3225	VCCCCY1HH330JY	J	33p	50V	Ceramic	AA
C3226	VCKYCY1HB102KY	J	1000p	50V	Ceramic	AA
C3227	VCKYCY1EF104ZY	J	0.1	25V	Ceramic	AA
C3228	VCEASX1CN106MY	J	10	16V	Electrolytic	AC
C3229	VCKYCY1EF104ZY	J	0.1	25V	Ceramic	AA
C3230	VCKYCY1AB105KY	J	1	10V	Ceramic	AB
C3231	VCEASX0JN107MY	J	100	6.3V	Electrolytic	AC
C3232	VCCCCY1HH560JY	J	56p	50V	Ceramic	AB
C3233	VCCCCY1HH560JY	J	56p	50V	Ceramic	AB
C3235	VCCCCY1HH5R0CY	J	5p	50V	Ceramic	AA
C3236	VCCCCY1HH5R0CY	J	5p	50V	Ceramic	AA
C3301	VCEASX1CN107MY	J	100	16V	Electrolytic	AC
C3302	VCKYCY1HB102KY	J	1000p	50V	Ceramic	AA
C3303	VCKYCY1HB102KY	J	1000p	50V	Ceramic	AA
C3304	VCEASX1CN106MY	J	10	16V	Electrolytic	AC
C3305	VCEASX1CN106MY	J	10	16V	Electrolytic	AC
C3306	VCKYTV1CB105KY	J	1	16V	Ceramic	AC
C3307	RC-EZA216WJZZ	J	1000	16V	Electrolytic	AD
C3308	RC-EZA216WJZZ	J	1000	16V	Electrolytic	AD
C3309	RC-EZA216WJZZ	J	1000	16V	Electrolytic	AD
C3310	VCKYCY1AB105KY	J	1	10V	Ceramic	AB
C3311	VCKYCY1AB105KY	J	1	10V	Ceramic	AB
C3312	RC-KZA030WJZZY	J	2.2	10V	Ceramic	AB
C3313	RC-KZA030WJZZY	J	2.2	10V	Ceramic	AB
C3314	VCKYCY1HB153KY	J	0.015	50V	Ceramic	AA
C3315	VCKYCY1HB153KY	J	0.015	50V	Ceramic	AA
C3317	RC-KZA030WJZZY	J	2.2	10V	Ceramic	AB
C3403	VCKYCY1EF104ZY	J	0.1	25V	Ceramic	AA
C3405	VCKYCY1AB105KY	J	1	10V	Ceramic	AB
C3406	VCKYCY1AB105KY	J	1	10V	Ceramic	AB
C3407	VCKYCY1AB105KY	J	1	10V	Ceramic	AB
C3408	VCKYCY1AB105KY	J	1	10V	Ceramic	AB
C3409	VCEASX1CN106MY	J	10	16V	Electrolytic	AC
C3410	RC-KZA030WJZZY	J	2.2	10V	Ceramic	AB
C3411	RC-KZA030WJZZY	J	2.2	10V	Ceramic	AB
C3412	RC-KZA067WJZZY	J	4.7	10V	Ceramic	AB
C3413	VCCCCY1HH121JY	J	120p	50V	Ceramic	AA
C3414	RC-KZA067WJZZY	J	4.7	10V	Ceramic	AB
C3415	VCCCCY1HH121JY	J	120p	50V	Ceramic	AA
C3416	RC-KZA067WJZZY	J	4.7	10V	Ceramic	AB
C3420	VCKYCY1EF104ZY	J	0.1	25V	Ceramic	AA
C3422	RC-KZA108WJZZY	J	10	10V	Ceramic	AC
C3423	RC-KZA108WJZZY	J	10	10V	Ceramic	AC
C3425	VCKYCY1EF104ZY	J	0.1	25V	Ceramic	AA
C3426	RC-KZA108WJZZY	J	10	10V	Ceramic	AC
C3427	RC-KZA108WJZZY	J	10	10V	Ceramic	AC
C3428	VCKYCY1EF104ZY	J	0.1	25V	Ceramic	AA
C3429	VCEASY1CN477MY	J	470	16V	Electrolytic	AD
C3441	RC-KZA108WJZZY	J	10	10V	Ceramic	AC
C3443	RC-KZA108WJZZY	J	10	10V	Ceramic	AC
C3444	RC-KZA108WJZZY	J	10	10V	Ceramic	AC

DUNTKD412WE02

ANALOG Unit (Continued)

Ref. No.	Part No.	★			Description	Code
C3446	RC-KZA108WJZZY	J	10	10V	Ceramic	AC
C3448	RC-KZA108WJZZY	J	10	10V	Ceramic	AC
C3451	VCAAPC0JJ226MY	J	22	6.3V	Electrolytic	AE
C3455	VCKYCY1HF103ZY	J	0.01	50V	Ceramic	AA
C3456	VCKYCY1EF104ZY	J	0.1	25V	Ceramic	AA
C3457	RC-EZA560WJZZ	J	3300	6.3V	Electrolytic	AE
C3495	VCCCCY1HH101JY	J	100p	50V	Ceramic	AA
C3496	VCCCCY1HH101JY	J	100p	50V	Ceramic	AA
C3497	VCCCCY1HH151JY	J	150p	50V	Ceramic	AA
C3502	VCEASX1CN107MY	J	100	16V	Electrolytic	AC
C3701	RC-KZ1025CEZZY	J	1	10V	Ceramic	AB
C3702	RC-KZA108WJZZY	J	10	10V	Ceramic	AC
C3709	RC-EZA559WJZZ	J	0.33F	5.5V	Electrolytic	AF
C3710	RC-KZ0072TAZZY	J	1	25V	Ceramic	AC
C3711	RC-KZ0072TAZZY	J	1	25V	Ceramic	AC
C3712	RC-KZ0072TAZZY	J	1	25V	Ceramic	AC
C3713	RC-KZ0072TAZZY	J	1	25V	Ceramic	AC
C3714	VCEASX1CN476MY	J	47	16V	Electrolytic	AC
C3715	RC-KZA111WJZZY	J	1	25V	Ceramic	AC
C6502	VCKYCY1CB473KY	J	0.047	16V	Ceramic	AA
C6503	VCKYCY1CB473KY	J	0.047	16V	Ceramic	AA
C6504	RC-EZA468WJZZ	J	2200	16V	Electrolytic	AE
C6505	VCKYCY1CB333KY	J	0.033	16V	Ceramic	AA
C6507	VCKYCY1CB473KY	J	0.047	16V	Ceramic	AA
C6508	VCKYCY1CB473KY	J	0.047	16V	Ceramic	AA
C6509	RC-EZA468WJZZ	J	2200	16V	Electrolytic	AE
C6510	RC-FZA107WJZZ	J	0.1	250V	Film	AD
C6511	RC-FZA107WJZZ	J	0.1	250V	Film	AD
C6512	VCKYCY1CB473KY	J	0.047	16V	Ceramic	AA

RESISTORS

Ref. No.	Part No.	★			Description	Code
R3201	VRS-CJ1JF101JY	J	100	1/16W	Metal Oxide	AA
R3205	VRS-CY1JF101JY	J	100	1/16W	Metal Oxide	AA
R3206	VRS-CY1JF152JY	J	1.5k	1/16W	Metal Oxide	AA
R3207	VRS-CY1JF331JY	J	330	1/16W	Metal Oxide	AA
R3208	VRS-CY1JF153JY	J	15k	1/16W	Metal Oxide	AA
R3209	VRS-CY1JF332JY	J	3.3k	1/16W	Metal Oxide	AA
R3210	VRS-CY1JF102JY	J	1k	1/16W	Metal Oxide	AA
R3211	VRS-CY1JF105JY	J	1M	1/16W	Metal Oxide	AA
R3221	VRS-CY1JF102JY	J	1k	1/16W	Metal Oxide	AA
R3301	VRS-CY1JF122JY	J	1.2k	1/16W	Metal Oxide	AA
R3302	VRS-CY1JF222JY	J	2.2k	1/16W	Metal Oxide	AA
R3303	VRS-CY1JF222JY	J	2.2k	1/16W	Metal Oxide	AA
R3304	VRS-CY1JF332JY	J	3.3k	1/16W	Metal Oxide	AA
R3305	VRS-CY1JF332JY	J	3.3k	1/16W	Metal Oxide	AA
R3306	VRS-CY1JF000JY	J	0	1/16W	Metal Oxide	AA
R3307	VRS-CY1JF000JY	J	0	1/16W	Metal Oxide	AA
R3308	VRS-CY1JF123JY	J	12k	1/16W	Metal Oxide	AA
R3310	VRS-CY1JF392JY	J	3.9k	1/16W	Metal Oxide	AA
R3311	VRS-CY1JF392JY	J	3.9k	1/16W	Metal Oxide	AA
R3312	VRS-CY1JF183JY	J	18k	1/16W	Metal Oxide	AA
R3313	VRS-CY1JF822JY	J	8.2k	1/16W	Metal Oxide	AA
R3314	VRS-CY1JF103JY	J	10k	1/16W	Metal Oxide	AA
R3315	VRS-CY1JF000JY	J	0	1/16W	Metal Oxide	AA
R3401	VRS-CY1JF101JY	J	100	1/16W	Metal Oxide	AA
R3402	VRS-TQ2BD750JY	J	75	1/8W	Metal Oxide	AA
R3403	VRS-CY1JF104JY	J	100k	1/16W	Metal Oxide	AA
R3404	VRS-TQ2BD750JY	J	75	1/8W	Metal Oxide	AA
R3405	VRS-CY1JF104JY	J	100k	1/16W	Metal Oxide	AA
R3406	VRS-CY1JF101JY	J	100	1/16W	Metal Oxide	AA
R3407	VRS-TQ2BD750JY	J	75	1/8W	Metal Oxide	AA
R3408	VRS-CY1JF104JY	J	100k	1/16W	Metal Oxide	AA
R3410	VRS-CY1JF104JY	J	100k	1/16W	Metal Oxide	AA
R3411	VRS-CY1JF104JY	J	100k	1/16W	Metal Oxide	AA
R3412	VRS-CY1JF101JY	J	100	1/16W	Metal Oxide	AA
R3413	VRS-CY1JF104JY	J	100k	1/16W	Metal Oxide	AA
R3415	VRS-CY1JF101JY	J	100	1/16W	Metal Oxide	AA
R3416	VRS-CY1JF101JY	J	100	1/16W	Metal Oxide	AA
R3418	VRS-CY1JF471JY	J	470	1/16W	Metal Oxide	AA
R3419	VRS-CY1JF471JY	J	470	1/16W	Metal Oxide	AA
R3420	VRS-TQ2BD750JY	J	75	1/8W	Metal Oxide	AA
R3421	VRS-CY1JF101JY	J	100	1/16W	Metal Oxide	AA
R3422	VRS-TQ2BD750JY	J	75	1/8W	Metal Oxide	AA
R3423	VRS-CY1JF101JY	J	100	1/16W	Metal Oxide	AA
R3424	VRS-CY1JF562JY	J	5.6k	1/16W	Metal Oxide	AA
R3425	VRS-CY1JF101JY	J	100	1/16W	Metal Oxide	AA
R3426	VRS-TQ2BD750JY	J	75	1/8W	Metal Oxide	AA
R3427	VRS-CY1JF153JY	J	15k	1/16W	Metal Oxide	AA
R3428	VRS-CY1JF101JY	J	100	1/16W	Metal Oxide	AA
R3432	VRS-CY1JF101JY	J	100	1/16W	Metal Oxide	AA
R3434	VRS-CY1JF104JY	J	100k	1/16W	Metal Oxide	AA
R3439	VRS-CY1JF103JY	J	10k	1/16W	Metal Oxide	AA
R3440	VRS-CY1JF103JY	J	10k	1/16W	Metal Oxide	AA
R3443	VRS-CY1JF471JY	J	470	1/16W	Metal Oxide	AA
R3444	VRS-TQ2BD750JY	J	75	1/8W	Metal Oxide	AA
R3445	VRS-CY1JF000JY	J	0	1/16W	Metal Oxide	AA
R3446	VRS-CY1JF103JY	J	10k	1/16W	Metal Oxide	AA
R3448	VRS-CY1JF103JY	J	10k	1/16W	Metal Oxide	AA
R3449	VRS-CY1JF100JY	J	10	1/16W	Metal Oxide	AA
R3450	VRS-CY1JF103JY	J	10k	1/16W	Metal Oxide	AA
R3451	VRS-CY1JF103JY	J	10k	1/16W	Metal Oxide	AA
R3452	VRS-TQ2BD221JY	J	220	1/8W	Metal Oxide	AA
R3453	VRS-CY1JF101JY	J	100	1/16W	Metal Oxide	AA
R3454	VRS-TQ2BD000JY	J	0	1/8W	Metal Oxide	AA
R3455	VRS-CY1JF471JY	J	470	1/16W	Metal Oxide	AA
R3456	VRS-CY1JF000JY	J	0	1/16W	Metal Oxide	AA
R3458	VRS-CY1JF103JY	J	10k	1/16W	Metal Oxide	AA
R3459	VRS-CY1JF103JY	J	10k	1/16W	Metal Oxide	AA
R3460	VRS-CY1JF104JY	J	100k	1/16W	Metal Oxide	AA
R3461	VRS-CY1JF471JY	J	470	1/16W	Metal Oxide	AA
R3462	VRS-CY1JF000JY	J	0	1/16W	Metal Oxide	AA
R3465	VRS-CY1JF103JY	J	10k	1/16W	Metal Oxide	AA
R3466	VRS-CY1JF103JY	J	10k	1/16W	Metal Oxide	AA
R3467	VRS-CY1JF103JY	J	10k	1/16W	Metal Oxide	AA
R3468	VRS-CJ1JF331JY	J	330	1/16W	Metal Oxide	AA
R3470	VRS-CY1JF123JY	J	12k	1/16W	Metal Oxide	AA
R3471	VRS-CY1JF123JY	J	12k	1/16W	Metal Oxide	AA
R3472	VRS-CY1JF223JY	J	22k	1/16W	Metal Oxide	AA
R3473	VRS-CY1JF223JY	J	22k	1/16W	Metal Oxide	AA
R3474	VRS-CY1JF102JY	J	1k	1/16W	Metal Oxide	AA
R3475	VRS-CY1JF102JY	J	1k	1/16W	Metal Oxide	AA
R3481	VRS-CY1JF102JY	J	1k	1/16W	Metal Oxide	AA
R3483	VRS-CY1JF152JY	J	1.5k	1/16W	Metal Oxide	AA
R3485	VRS-CY1JF561FY	J	560	1/16W	Metal Oxide	AA
R3487	VRS-CY1JF102FY	J	1k	1/16W	Metal Oxide	AA
R3491	VRS-CJ1JF000JY	J	0	1/16W	Metal Oxide	AA
R3539	VRS-CY1JF000JY	J	0	1/16W	Metal Oxide	AA
R3540	VRS-CY1JF000JY	J	0	1/16W	Metal Oxide	AA
R3541	VRS-CY1JF105JY	J	1M	1/16W	Metal Oxide	AA
R3542	VRS-CY1JF105JY	J	1M	1/16W	Metal Oxide	AA
R3543	VRS-CY1JF105JY	J	1M	1/16W	Metal Oxide	AA
R3544	VRS-TQ2BD100JY	J	10	1/8W	Metal Oxide	AA
R3701	VRS-TQ2BD000JY	J	0	1/8W	Metal Oxide	AA
R3705	VRS-CY1JF102JY	J	1k	1/16W	Metal Oxide	AA
R3706	VRS-CY1JF184JY	J	180k	1/16W	Metal Oxide	AA
R3707	VRS-CY1JF103JY	J	10k	1/16W	Metal Oxide	AA
R3718	VRS-TQ2BD101JY	J	100	1/8W	Metal Oxide	AA
R3720	VRS-CH1JF824JY	J	820k	1/16W	Metal Oxide	AA
R3721	VRS-CH1JF562JY	J	5.6k	1/16W	Metal Oxide	AB
R3722	VRS-CY1JF563JY	J	56k	1/16W	Metal Oxide	AA
R3723	VRS-TQ2BD000JY	J	0	1/8W	Metal Oxide	AA
R3724	VRS-CH1JF222JY	J	2.2k	1/16W	Metal Oxide	AA
R3725	VRS-CY1JF682FY	J	6.8k	1/16W	Metal Oxide	AA
R3726	VRS-CY1JF152FY	J	1.5k	1/16W	Metal Oxide	AA
R3727	VRS-TQ2BD1R0JY	J	1	1/8W	Metal Oxide	AA
R3728	VRS-CY1JF102JY	J	1k	1/16W	Metal Oxide	AA
R3729	VRS-CY1JF132FY	J	1.3k	1/16W	Metal Oxide	AA
R3730	VRS-CY1JF102JY	J	1k	1/16W	Metal Oxide	AA
R3731	VRS-TQ2BD000JY	J	0	1/8W	Metal Oxide	AA
R3733	VRS-TQ2BD000JY	J	0	1/8W	Metal Oxide	AA
R4050	VRS-CY1JF682JY	J	6.8k	1/16W	Metal Oxide	AA
R4051	VRS-CY1JF472JY	J	4.7k	1/16W	Metal Oxide	AA
R4052	VRS-CY1JF682JY	J	6.8k	1/16W	Metal Oxide	AA
R4053	VRS-CY1JF472JY	J	4.7k	1/16W	Metal Oxide	AA
R4054	VRS-CY1JF823JY	J	82k	1/16W	Metal Oxide	AA
R4055	VRS-CY1JF274JY	J	270k	1/16W	Metal Oxide	AA

Ref. No.	Part No.	★	Description	Code

DUNTKD412WE02
ANALOG Unit (Continued)

R6500	VRS-TQ2BD362JY	J	3.6k	1/8W	Metal Oxide	AA
R6501	VRS-TQ2BD302JY	J	3k	1/8W	Metal Oxide	AA
R6502	VRS-CY1JF103JY	J	10k	1/16W	Metal Oxide	AA
R6503	VRS-CY1JF333JY	J	33k	1/16W	Metal Oxide	AA
R6504	VRS-TQ2BD362JY	J	3.6k	1/8W	Metal Oxide	AA
R6506	VRS-CY1JF103JY	J	10k	1/16W	Metal Oxide	AA
R6507	VRS-CY1JF333JY	J	33k	1/16W	Metal Oxide	AA
R6513	VRS-TQ2BD302JY	J	3k	1/8W	Metal Oxide	AA
R6520	VRS-TQ2BD362JY	J	3.6k	1/8W	Metal Oxide	AA
R6521	VRS-TQ2BD302JY	J	3k	1/8W	Metal Oxide	AA
R6522	VRS-TQ2BD302JY	J	3k	1/8W	Metal Oxide	AA
R6523	VRS-TQ2BD362JY	J	3.6k	1/8W	Metal Oxide	AA

SWITCHES

SW4050	QSW-K0065GEZZY	J	CH(Channel)(∨)	AD
SW4051	QSW-K0065GEZZY	J	CH(Channel)(∧)	AD
SW4052	QSW-K0065GEZZY	J	INPUT	AD
SW4053	QSW-K0065GEZZY	J	POWER	AD
SW4054	QSW-K0065GEZZY	J	MENU	AD
SW4055	QSW-K0065GEZZY	J	VOL(Volume)(+)	AD
SW4056	QSW-K0065GEZZY	J	VOL(Volume)(–)	AD

MISCELLANEOUS PARTS

⚠ F3701	QFS-ZA005WJZZ	J	Fuse, 2.5A/250V		AC
⚠ F3702	QFS-ZA004WJZZ	J	Fuse, 2.0A/250V		AD
⚠ F6501	QFS-ZA003WJZZ	J	Fuse, 1.6A/250V		AD
⚠ F6502	QFS-ZA003WJZZ	J	Fuse, 1.6A/250V		AD
FB3201	RBLN-0035TAZZY	J	Ferrite Bead		AB
J3401	QSOCDA028WJZZ	J	S-VIDEO		AC
J3402	QJAKGA071WJZZ	X	AUDIO(L/R)/VIDEO		
J3403	QJAKGA071WJZZ	X	INPUT3/OUTPUT		
J3404	QJAKJ0101SEZZ	J	ADUIO(L/R)		AE
J3405	QJAKGA082WJZZ	X	Y/PB/PR		
J3701	QJAKCA010WJZZ	J	POWER INPUT(DC 12V)		AF
P3401	QPLGN1375TAZZY	X	Plug, 13-pin		
P3402	QPLGN0478GEZZ	J	Plug, 4-pin		AB
P3702	QCNCMA012WJZZ	J	Connector, 15-pin		AD
P3703	QPLGN0478GEZZ	J	Plug, 4-pin		AB
P6500	QPLGN0155FJZZY	J	Plug, 3-pin		AE
P6501	QPLGN0155FJZZY	J	Plug, 3-pin		AE
SC3401	QSOCNA478WJZZY	J	Socket, 60-pin		AF
LUG3401	QLUGHA006WJZZY	J	Lug		AC
LUG3402	QLUGHA006WJZZY	J	Lug		AC
LUG3403	QLUGHA006WJZZY	J	Lug		AC
LUG3404	QLUGHA006WJZZY	J	Lug		AC
	PSLDMA830WJZZ	X	Shield, x1		

Ref. No.	Part No.	★	Description	Code

DUNTKD413WE02
R/C, LED Unit

INTEGRATED CIRCUITS

IC4000	VHiMM1616++-1Y	J	MM1616XBRE	AF

TRANSISTORS

Q4000	VSDTC144EE/-1Y	J	DTC144EE	AA
Q4001	VSDTC144EE/-1Y	J	DTC144EE	AA
Q4002	VSDTC144EE/-1Y	J	DTC144EE	AA

DIODES

D4000	RH-PX0421CEZZY	J	POWER/WAKE UP TIMER Indicator	AD
D4001	RH-PX0421CEZZY	J	OPC Indicator	AD
D4006	RH-EX1247CEZZY	J	Zener Diode, 5.6V	AB

CAPACITORS

C4000	VCEASX1CN106MY	J	10	16V	Electrolytic	AC
C4001	VCKYCY1HF103ZY	J	0.01	50V	Ceramic	AA
C4003	RC-KZ0117TAZZY	J	4.7	6.3V	Ceramic	AD

RESISTORS

R4000	VRS-CY1JF331JY	J	330	1/16W	Metal Oxide	AA
R4001	VRS-CY1JF182JY	J	1.8k	1/16W	Metal Oxide	AA
R4002	VRS-CY1JF331JY	J	330	1/16W	Metal Oxide	AA
R4004	VRS-TQ2BD681JY	J	680	1/8W	Metal Oxide	AA
R4005	VRS-TQ2BD681JY	J	680	1/8W	Metal Oxide	AA
R4006	VRS-CY1JF101JY	J	100	1/16W	Metal Oxide	AA
R4007	VRS-TQ2BD681JY	J	680	1/8W	Metal Oxide	AA
R4008	VRS-TQ2BD681JY	J	680	1/8W	Metal Oxide	AA

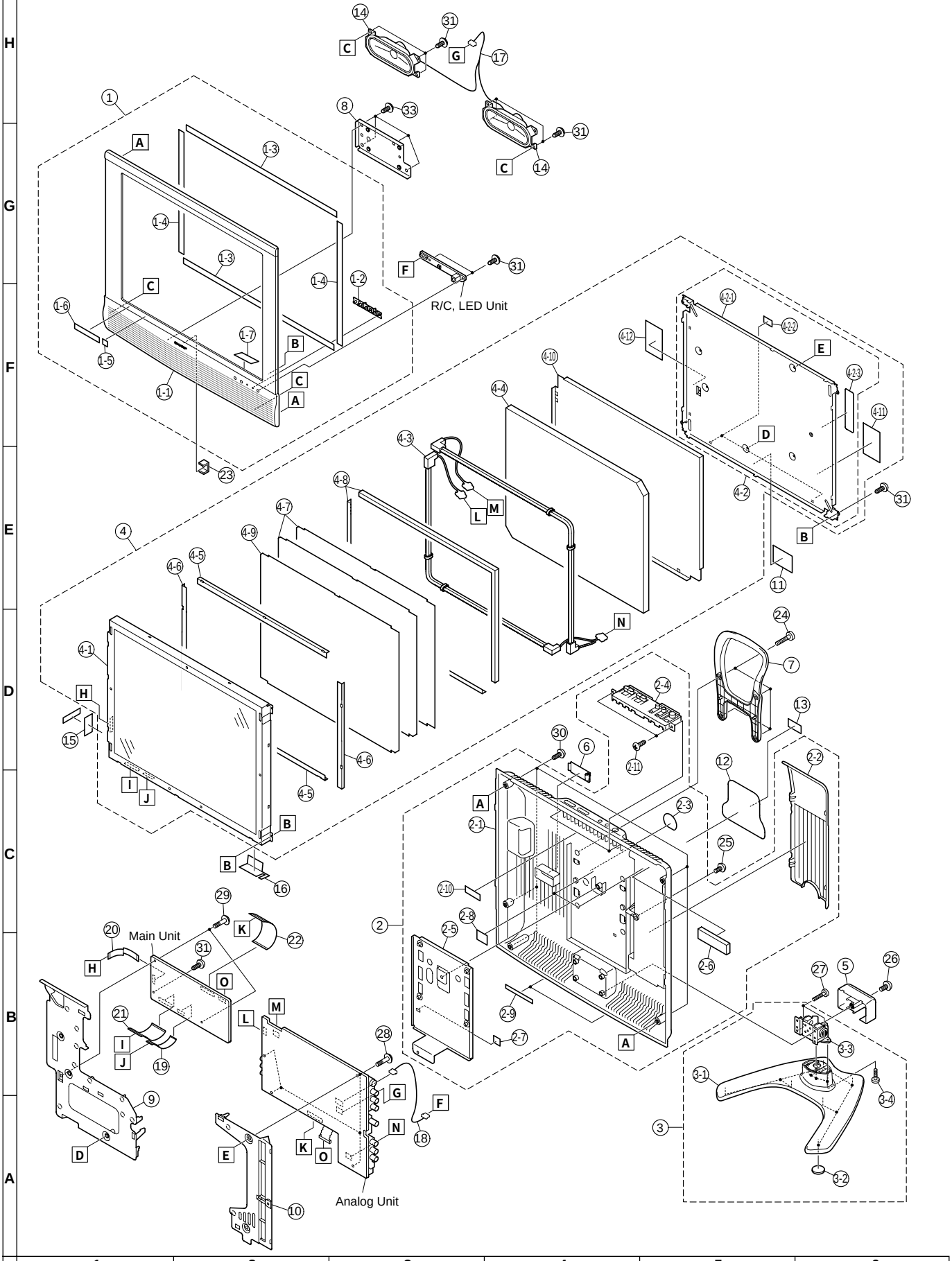
MISCELLANEOUS PARTS

J4000	QJAKJA009WJSA	J	HEADPHONE Jack	AE
P4001	QPLGN1375TAZZY	X	Plug, 13-pin	
RMC4000	RRMCUA034WJQZ	J	R/C Sensor	AE

CABINET AND MECHANICAL PARTS

Ref. No.	Part No.	★	Description	Code
1	CCABAB115WJ01	X	Cabinet A Ass'y	
1-1	*Not Available*	–	Cabinet A	—
1-2	HDECQA474WJSA	J	R/C,LED Cover	AE
1-3	PSPAHA050WJZZ	J	Mask Spacer(L), x2	AC
1-4	PSPAHA051WJZZ	J	Mask Spacer(S), x2	AC
1-5	TLABZA459WJZZ	J	"POP" Label	AB
1-6	TLABZA635WJZZ	J	"EnergyStar" Label	AC
1-7	TLABZA875WJZZ	X	Material Label	
2	CCABBA652WJ01	X	Cabinet B Ass'y	
2-1	*Not Available*	–	Cabinet B	—
2-2	GCOVAB080WJKA	J	Terminal Cover	AL
2-3	HiNDP5733CESB	J	AQUOS Label	AD
2-4	JBTN-A443WJKA	J	Operation Button	AG
2-5	LANGTA162WJFW	J	Reinforcement Angle	AM
2-6	PMLT-A090WJZZ	J	Light Shielding Spacer, x1	AD
2-7	PSPAH0678CEZZ	J	Spacer, x1	AA
2-8	PSPAHA514WJZZ	J	Spacer, x2	AA
2-9	PSPAHA515WJZZ	J	Spacer, x2	AC
2-10	TLABZA875WJZZ	X	Material Label	
2-11	XEBSN30P08000	J	Screw, x2	AA
3	CDAi-A238WJ01	X	Stand Ass'y	
3-1	GDAi-A238WJSA	X	Stand, Base	
3-2	GLEGGA010WJZZ	J	Cushion Spacer, x6	AC
3-3	MHNG-A114WJFW	X	Tilt Hinge	
3-4	XBBS940P16000	J	Screw, x4	AB
4	*Not Available*	–	15" LCD Panel Unit Ass'y	—
4-1	RLCDTA024WJN1	J	15" LCD Panel Unit	CN
4-2	*Not Available*	–	Back Shield Ass'y	—
4-2-1	PSLDMA557WJFW	J	Back Shield	AQ
4-2-2	PSPAHA333WJZZ	J	Spacer, x2	AA
4-2-3	TCAUZA031WJZZ	J	Caution Label	AB
⚠ 4-3	KLMP-A099WJZZ	J	Lamp Unit, x1	BC
4-4	PGiDMA015WJZZ	J	Light Guide Panel	BA
4-5	PMiR-A059WJZZ	J	Reflection Mirror(L), x2	AE
4-6	PMiR-A060WJZZ	J	Reflection Mirror(S), x2	AE
4-7	PSHEP0283CEZZ	J	Diffusion Sheet, x2	AL
4-8	PSHEP0307CEZZ	J	Multi Reflection Sheet, x2	AC
4-9	PSHEPA268WJZZ	J	Reflection/deflection Sheet	BC
4-10	PSHEPA277WJZZ	J	Reflection Sheet	AK
4-11	PSLDMA273WJZZ	J	Shield, x1	AG
4-12	PSLDMA284WJZZ	J	Shield, x1	AE
5	GCOVAB082WJKA	J	Stand Cover	AK
6	GCOVAB088WJKA	J	Bass-Cone Cover	AE
7	JHNDPA017WJKA	J	Carrying Handle	AL
8	LANGTA165WJFW	J	Stand Angle	AG
9	LCHSMA162WJKA	J	Chassis Frame(R)	AK
10	LCHSMA242WJKA	X	Chassis Frame(L)	
11	PSLDMA291WJZZ	J	Shield, x1	AF
12	HiNDPB434WJSA	X	Model Label	
13	*Not Available*	–	Serial No. Label	—
14	VSP7530PB678B	J	Speaker, x2	AL
15	PSPAKA045WJZZ	J	Spacer, x1	AB
16	PSPAKA101WJZZ	J	Light Shielding Spacer, x1	AD
17	QCNW-C988WJQZ	J	Connecting Cord	AF
18	QCNW-D890WJQZ	X	Connecting Cord	
19	QCNW-D913WJQZ	J	Connecting Cord	AE
20	QCNW-D914WJQZ	J	Connecting Cord	AF
21	QCNW-D915WJQZ	J	Connecting Cord	AG
22	QCNW-D916WJQZ	J	Connecting Cord	AF
23	QEARZA075WJZZ	J	Grounding Part, x1	AB
24	LX-BZ3442CEF9	J	Screw, x4	AB
25	XBBS930P05000	J	Screw, x1	AA
26	XBBS940P08000	J	Screw, x1	AB
27	XBBS940P14000	J	Screw, x4	AB
28	XBPS730P10JS0	J	Screw, x4	AA
29	XBPS730P18JS0	J	Screw, x2	AB
30	XEBS930P14000	J	Screw, x5	AA
31	XEBSN30P08000	J	Screw, x10	AA
33	XEBS940P16000	J	Screw, x4	AB

CABINET AND MECHANICAL PARTS



Ref. No.	Part No.	★	Description	Code

SUPPLIED ACCESORIES

	X1	LHLDWA002WJSA	J	Cable Clamp, x1	AD
⚠	X2	QACCDA023WJPA	J	AC Cord	AK
	X3	QCNWGA074WJPZ	X	Audio Cable	
	X4	RRMCGA293WJSA	J	Wireless Remote Control	AT
	X5	TCADEA126WJZZ	X	Questionnaire Card	
	X6	TiNS-B995WJN1	X	Operation Manual	
⚠	X7	UADP-A086WJPZ	X	AC Adapter	
	X8	*Not Available*	–	"AAA" size Battery, x2	—

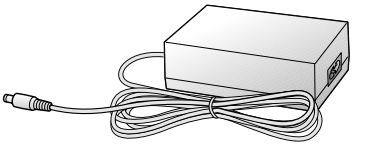
SERVICE JIGS
(USE FOR SERVICING)

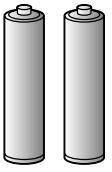
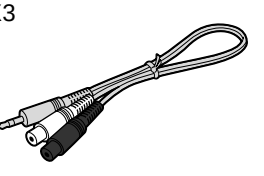
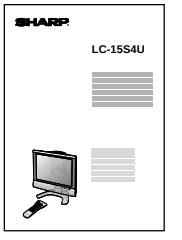
QCNW-A555WJZZ	J	Extension Cable 20-pin (SC1203-LCD)	AU
QCNW-A556WJZZ	J	Extension Cable 50-pin (SC1201-LCD)	AU
QCNW-B784WJZZ	J	Extension Cable 30-pin (SC1202-LCD)	BA

PACKING PARTS
(NOT REPLACEMENT ITEM)

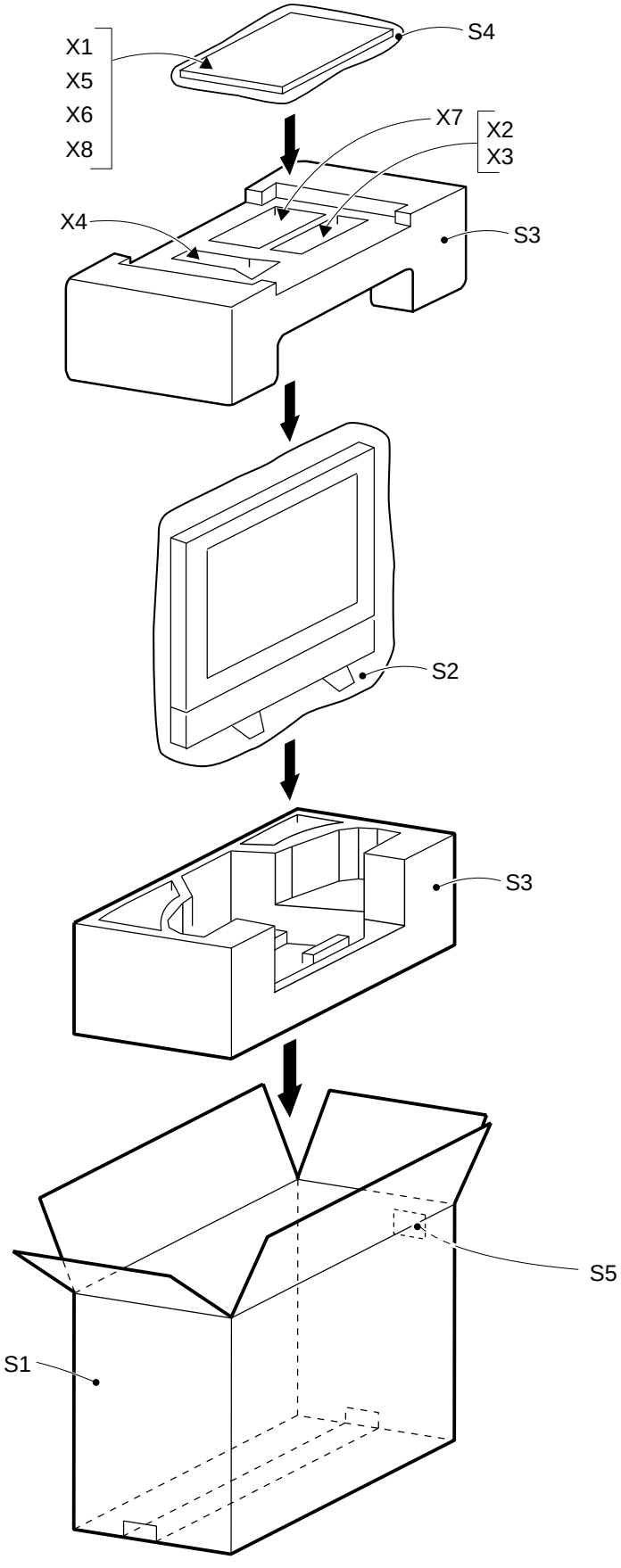
S1	SPAKCC167WJZZ	–	Packing Case	—
S2	SPAKPA559WJZZ	–	Wrapping Paper	—
S3	SPAKXA849WJZZ	–	Buffer Material	—
S4	SSAKA0101GJZZ	–	Polyethylene Bag	—
S5	TLABKA009WJZZ	–	No. Label	—

Supplied Accessories

Wireless remote control	AC adapter	AC cord
X4	X7 	X2

"AAA" size batteries (×2)	Cable clamp	Audio cable	Operation manual
X8 	X1	X3 	X6 

PACKING OF THE SET



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TQ1937-S
Oct. 2005 Printed in Japan

Design and Production Information
Design : Japan
Production : SEMEX

MI. KG

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